The sound and the fury of blasted Basra

BY KATHY EVANS IN BASRA

THE FIRST show of the evening is just beginning at the Nights of Basra. The curtain opens to the sound of a scratchy Western tape and a troupe of Filipino dancers dressed in G-strings and chiffon begin their routine. The ambiance begins to improve as the whisky flows and the lead dancer slowly begins to gyrate.

Twice in the evening, the lights go up without warning and Iraqi military police enter to check customers' identity papers. They are looking for army deserters, for the Ayatollah Khomeini's guns are only 18 miles away.

Basra is the immediate prize sought by the forces of the Islamic Republic of Iran. To Iranian strategists, its capture would destabilise, if not topple the regime of President Saddam Hussein, and generate panic in the lower Gulf states.

Basra, however, like the whole of the south of Iraq, is thick with defences; the region resembles a massive army camp.

Once a boom town and Iraq's premier port, the city is now suspended in time, dusty and dishevelled. The docks have been closed since 1980 because of the war, and rusting hulks of merchant ships lie in the Shatt-al-Arab waterway which cuts through the town.

Keeping Basra alive as it suffers daily shelling from the Iranian forces has taken on a political significance. The Government tries to maintain an air of activity with projects such as the international airport being built nearby.

The headquarters of the "imperialists," as the Sheraton Hotel has been called by the Iranians, stays open despite its 30 per cent occupancy, the closure of its casino and its supper club.

Officially 300,000 people still live in the town and no refugees have fled. Yet empty houses can be seen everywhere and every day the shelling blasts another little slice of Basra.

In the past two days, the nerves of local residents have been particularly stretched as Iraq awaits another imminent ground offensive. According to Major General Maher Abdul Rahim Rashid, the flamboyant commander of Iraq's third army corps, last week's relatively subdued shelling was the lull before the storm.

The army has been massing in the Northern and Central sectors, he says. Gen Rashid expects the Iranians to make more use of the "remnants" of their regular troops this time. Speaking in an underground bunker 12 miles from the Iranian forces, he says he will treat the regular troops differently from the "ignorant volunteers" who form the human waves coming across the border.

Nevertheless, he adds that he is now working under the slogan of "annihilation," and that if the Iranians cross his strategic defence lines then he will not hesitate, if authorised, to use chemical weapons. He swears that they have not been used before.

"Such barbarians can easily be *annihilated* by conventional weapons."

Majnoon Island, just 50 miles North in the marsh area and the scene of February's bloody battles, is now well under control, Gen Rashid says. The Iranians are able to sneak into the islands only "like night thieves"

"We wish they would send more from Tehran to Majnoon," he joked, "so we can hunt them at our leisure." Other military observers say however that winkling the Iranians out of the waterlogged island would incur heavy casualties, the one thing the Iraqis want to avoid.

S. Africans expect further pacts

BY BERNARD SIMON IN JOHANNESBURG

A WAVE of near euphoria has swept white South Africa over the past few days, following last Friday's signing of the historic non-aggression pact between Prime Minister P. W. Botha and President Samora Machel of Mozambique.

Convinced that the accord with Mozambique will be followed by similar peace moves in other parts of the subcontinent and growing economic co-operation between South Africa and its black-ruled neighbours, most white South Africans are brushing aside—at least for the time being—warnings that rapprochement with their neighbours has not solved the country's internal problems.

The pact has made little impression on blacks and has been relegated to the inside pages of the country's main black newspaper. At the same time, Mozambican state radio has noted that last Friday's extravagant bush ceremony was not a "meeting of friends" but the result of circumstances such as economic problems and the activities of anti-Government rebels backed by South Africa.

Pretoria has acted quickly to show Mozambique and other countries the benefits to be gained by scaling down support for guerrillas of the African National Congress (ANC). The Right-wing radio station supporting anti-government rebels in Mozambique, which is widely believed to operate from the northern Transvaal, suddenly announced last Thursday that it is closing down for "re-organisation."

The South Africans have donated six tons of medical supplies to Mozambique as aid for flood victims in the southern part of the country and have offered 25,000 cartons of apples to drought-stricken areas further north.

A number of businessmen said they are investigating opportunities in Mozambique in fishing, hotels and other sectors.

A mission of the Mozambican Railways visited Johannesburg last week in an effort to encourage more South African companies to route their imports and exports through the port of Maputo.

Our Foreign Staff adds: President Jose Eduardo dos Santos of Angola arrived in Havana on Saturday for talks with Cuba's President Fidel Castro which are expected to centre on the future of the 25,000 Cuban soldiers in Angola.

Most members of Cuba's ruling Politburo were on hand to welcome the President, whose visit is taking place amid growing doubts over Cuba's role in the former Portuguese colony.

Turks fast to death

By Our Foreign Staff

AS many as 12 people have fasted to death in Turkish jails over the past few weeks in protests against prison torture and bad living conditions. Diplomatic sources and relatives said the biggest hunger strike so far was in the military prison in the south-eastern city of Diyarbakir where most inmates are Kurds accused of separatist militancy.

There has been no official confirmation of prison deaths or official statements on hunger strikes, which have taken place in areas under martial law.

Relatives of Diyarbakir prisoners went to Ankara to tell Turkish and foreign reporters that 11 inmates starved themselves to death on a hunger strike that began in early January.

Diplomatic sources said they had confirmed seven hunger strike deaths in Diyarbakir while unconfirmed reports said a further four had died. Another report said the fast was called off earlier this month.

Relatives said that at Mamak military jail outside Ankara a hunger striker died this week and several others were in a critical state in hospital.

The reports come at a time when Turkey hopes to improve its relations with the European Community after three years of military rule, which produced frequent criticism in Western Europe about human rights conditions in Turkey.

Reports of the fasts have not run in Turkish newspapers, which risk closures and prosecution if they carry stories deemed by military courts to be against the national interest.

In 1982, the then military government admitted 15 prisoners had died under torture but said it was taking steps to stop it.

Lebanon conference considers concessions

By Anthony McDermott in Lausanne

A key session of the National Conciliation Conference started here yesterday afternoon, but adjourned almost immediately for private consultations on a working document making major concessions by both the Lebanese Moslem and Christian factions.

The compromise involves recognition by the Christians that the confessional balance of Lebanon has changed since 1932, when the last census was held and since the unwritten National Charter of 1946.

Under the National Pact, which drew on the census finding that the Maronites together with other Christian minorities formed 52 per cent of the population, the President was always to be a Maronite Christian, the Prime Minister, a Sunni Moslem, and the head of the legislative assembly, a Shia Moslem.

The recognition by the christians that the demography has changed is coupled with an acceptance that arrangements must be made to acknowledge this change.

In return, there has been acceptance that, as one Shi'ite (and therefore, opposition) leader put it, the Christians have "legitimate insecurity fears which should be recognised and allayed."

The main architects of the document have been President Amin Gemayel, and the Vice President of Syria, Mr Abdel Halim Khaddam, officially an observer to the conference.

Egypt-Sudan defence pact invoked after 'Libyan attack'

BY CHARLES RICHARDS IN CAIRO

EGYPT and Sudan have invoked their 1967 mutual defence pact following Friday's air attack on the Sudanese city of Omdurman, which both countries accuse Libya of carrying out.

Egyptian pilots and crews were called up and Egyptian army commanders were despatched for hasty consultation in the Sudanese capital.

The Egyptian Foreign Minister said that evidence had established that the type of bombs and planes used—a long-rang supersonic TU-22 bomber (Nato designation Blinder)—could only have come from Libya.

As he pointed out, the attack bears a striking resemblance to an incident in February, 1983, when Egypt and Sudan accused Libya of planning to bomb targets around Khartoum from Al-Kufra Oasis.

The call-up of Egyptian forces—with 500,000 men under arms by far the largest military power in the Arab world—is intended to deter any further attack on Sudan.

Mr Hosni Mubarak, the Egyptian President, called the raid "a mad act whose perpetrators came from an uncivilised country." He further said that whenever he received a message from Colonel Gadaffi, the Libyan leader, calling for peace talks, he knew something was brewing.

President Nimeiri of Sudan might interpret the raids as part of what he sees as attempts by Libya and Ethiopia to destabilise the country by aiding rebels in southern Sudan. However, the external threat could be viewed as only one element in the worsening security situation in the south, where rebels are fighting what they perceive as domination of the African non-Moslem south by the Arab Moslem north.

Col. Gadaffi has denied supporting secessionist movements, but claims he is leading the battle for unity and revolution in Sudan. Some observers feel the violation of Sudan's sovereignty will further discredit President Nimeiri's regime and aggravate hostility towards the Sudanese armed forces for failing adequately to defend the country's borders and protect the civilian population.

Egypt is bound to ensure the security and stability of its southern neighbour for its own strategic considerations, but is wary of committing troops to a cause that is losing popularity at home.

Cairo had been privately counselling the Sudanese President to try to lessen tension in the south by opening a dialogue with southern dissidents, but has had to tread carefully to avoid accusations of interfering in Sudan's internal affairs.

● The Egyptian President has exchanged messages with President Reagan, but there were no details of what they contained, our Foreign Staff writes. Press reports from the U.S. have said Washington and Cairo were considering an emergency airlift of military equipment to the Sudan.

Fighting flares again in Beirut

BEIRUT – Rival Christian and Moslem militias traded rockets, mortars and machine gun fire in and around Beirut yesterday as reports surfaced that France had tentatively agreed to help separate the warring factions.

Battles between the militiamen raged at midmorning along the Green line dividing Christian East and Moslem West Beirut, but the fighting then eased back into sporadic exchanges.

The renewed hostilities came one day after the most serious violations of the ceasefire proclaimed last Tuesday.

The ceasefire was severely strained on Saturday when shells slammed into Green line neighborhoods in central Beirut and deep into residential areas in both East and West Beirut, and in the Shiite Moslem-populated southern suburbs.

Police said at least 15 civilians were killed in the weekend exchanges, including four Palestinian refugees at the Chatilla camp south of the city, and 45 other civilians were wounded.

In Beirut yesterday unidentified jets made reconnaissance flights over the capital and the central mountains, drawing anti-aircraft fire, the state-run Beirut Radio said. There was no report of any aircraft being hit.

Fighting was reported in the Kharroub region just above Israel's defence line along the Awali river in southern Lebanon.

The Christian "Voice of Lebanon" radio station said christian fighters of the "Lebanese forces" militia in the coastal villages of aiye and Bourjein ere engaged in rocket-propelled grenade and machine-gun duels with Druse militiamen in Siblin.

In Israeli-occupied southern Lebanon, a roadside bomb exploded as an Israeli patrol was passing east of the Port of Sidon, wounding up to four Israeli soldiers, Beirut Radio reported.

The state radio said another roadside bomb exploded near an Israeli patrol close to the inland market town of Nabatiyeh southeast of Sidon, but there were no immediate reports of casualties. – AP

U.S. withholds Nigeria credit

BY QUENTIN PEEL, AFRICA EDITOR

THE U.S. Government is withholding some $70m (£50m) in credit promised to Nigeria for wheat purchases, pending an agreement with the International Monetary Fund on an economic stabilisation programme, Dr Ibrahim Gambari, Nigeria's Foreign Minister, said yesterday.

"We are not happy with what the Americans are doing," he said in London. "They are linking everything to the IMF."

Dr Gambari, who held talks yesterday with Sir Geoffrey Howe, his British counterpart, appealed to Western governments in general, and the U.S. in particular, to give Nigeria more sympathy and support in its current negotiations with the Fund.

"We would like to have an agreement with the IMF," he said. "We believe Western governments are even more interested than ourselves in our having an agreement.

"We have had some indications that they will do everything possible to ensure that such an agreement will be reached."

However, Dr Gambari said the U.S. Government was withholding the balance of a $100m line of credit for wheat purchases, agreed with the former Nigerian régime, specifically until the new government had reached agreement with the IMF.

The Nigerian Government is negotiating with the IMF on a three-year programme which would provide standby credits of between $2.6bn and $3.2bn. However, the talks have been held up because of disagreement, particularly over the question of devaluation of the naira.

Dr Gambari said IMF terms must be "socially, politically and economically acceptable" to the new military government in Nigeria.

Meanwhile, the Government was looking for alternative sources of finance, including the Saudi Government, and an increase in its oil production quota fixed by the Organisation of Petroleum Exporting Countries.

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Strike hits 10 ports in India

By K. K. Sharma in New Delhi

THE INDIAN Government took an anxious assessment yesterday of inventories of imported goods on which the country depends as the near-total strike by more than 300,000 dockworkers paralysed the 10 majors ports for the fourth successive day.

The buffer stocks of foodgrains, fertilisers and cooking oil were said to be sound, while the navy had been asked to help in unloading crude and petroleum goods from tankers to keep coastal refineries in operation.

Officials said yesterday that no immediate shortages were feared but it was apparent that a prolonged strike could seriously harm the economy, particularly by eroding foreign exchange earnings from exports. These are needed to close the Rs 50bo ($4.7bn) annual trade gap.

The Government has described the strike – called by the port workers' four national federations – as illegal on the grounds that conciliation proceedings were still in progress when it began last week.

There is as yet no move for fresh talks with the dockers' leaders on their demands for a 30 per cent rise in wages compared with the 15 per cent the Government is willing to concede. It is possible that a move to end the deadlock will be made later in the week.

The strike is the biggest since the *Congress(I) Party returned to power* in 1980 after the two-year abortive strike that crippled the Bombay textile industry. This fizzled out last year.

OVERSEAS NEWS

TODAY'S EEC SUMMIT

Unfair trade defences to be stiffened

By Paul Cheeseright in Brussels

THE EEC is stiffening its defences against the unfair trading practices of its competitors. A last-minute political agreement before the summit has resolved nearly two years of argument on which institution of the EEC should decide on the defence, when it is necessary.

The new common Commercial Policy Instrument, as it is called, is designed to provide a quicker response in trading disputes where EEC countries or the companies within them feel they are not able to compete equally.

The model most frequently cited is the U.S. Trade Act which provides a means for U.S. companies to petition for Administration action against other countries when they are thought to be competing unfairly.

The idea of an EEC Instrument was advanced by France in 1982, but negotiations quickly bogged down on whether the European Commission or the Council of Ministers should have the right to initiate action.

The conclusion of the main part of the negotiations, just reached by officials of the Ten and now to be defined in a legal text, sprang from a British compromise suggestion and falls into two parts.

Where the EEC has to respond to the legal trading actions of others, such as seeking compensation for lost tariff concessions or the imposition of quantative restrictions, the Council takes the decision to act by qualified majority.

With the illegal trading actions of others, such as export subsidies or the freezing of EEC companies out of public sector markets, the procedure is lengthier.

France outlines basis for global agreement

BY JOHN WYLES IN LUXEMBOURG

A DOCUMENT setting out the basis for a global agreement at today's EEC summit was sent to national capitals late on Friday by France, acting in its capacity as President of the EEC's Council of Ministers.

The introduction sets out the goals of the Community. These are a modernised agricultural policy, increased convergence between member states, enlargement of EEC on satisfactory terms and priority moves to strengthen industrial competitiveness.

The proposal seeks agreement by the end of June on new forms of EEC co-operation in telecommunications and biotechnologies. It calls for increased spending on research and development.

The new policies section aims at the achievement of a "true" economic union, through greater economic convergence, industrial co-operation and strengthening of the Common Market.

Specifically, it seeks agreements harmonising production norms, the progressive liberalisation of services (including insurance and transport) and a common transport policy.

On the financial front it seeks further work on adapting the European Monetary System (EMS), greater use of EEC borrowing to finance investment and progress towards "better" financial integration.

After listing outstanding farm issues the proposals call for a more efficient use of the EEC's structural funds so as to avoid duplication of spending and their combination in the form of integrated Mediterranean programmes.

Spending on all structural funds should grow "substantially" in real terms. September 30 is set as the target date for completing the accession negotiations with Spain and Portugal.

On budgetary discipline the proposal says the Council of Ministers should set each year, as "a point of reference," a figure for the growth of EEC spending.

On Budgetary imbalances, jargon for the British budget problem it says that entitlement to a reduction in budget payments should be determined by relative prosperity as should the size of any reduction. But no member State should be exempted from paying for increased EEC spending.

Reductions would be achieved by lowering a member State's transfers of value added tax and customs duties and levies to Brussels.

EEC farm deal: cause for muted celebration

BY OUR BRUSSELS CORRESPONDENT

THE WEEK which ended in bleary-eyed satisfaction at midday on Saturday was a highly unusual one for EEC Agriculture Ministers. Accustomed during the past 15 years to distributing largesse to the Community's 9m farmers and to buying each other off with special little programmes of benefit to one country or another, the Ministers this time reached provisional agreement on a package imposing some painful sacrifices on their agricultural industries.

It might be said that the Community's parlous budgetary situation, and the need to make an important contribution to boosting the prospects for agreement at today's summit in Brussels, left them with little alternative.

M Michel Rocard, France's Minister of Agriculture, acknowledged as much on Saturday. As President of the Council of Ministers he had kept his colleagues up all night and pushed them towards agreement because otherwise the Community might have "broken asunder."

It was wise of him not to apply a more extravagent rating to the achievement. By slapping curbs on milk production, cutting prices on a number of products, and limiting price guarantees on others, the Ministers have changed the shape of the Common Agricultural Policy (CAP) and created the basis for making it more economical in the future.

But they have failed to respond to the imperatives imposed by the 16.5bn European currency units (£10bn) farm budget. As a result, the Ten may have to find another 2.5bn ecu for agriculuture before the end of the year, despite the fact that overall EEC spending is flat up against the maximum legal limit on revenues that member states can supply

The financial impact of last week's draft agreements is still unclear. Overall, the European Commission's price and CAP reform proposals were meant to save 875m ecu this year. This saving has been turned into an additional cost of 610m ecu this year and 826m ecu next year.

The extra costs derive in some ways from the Ministers' inability to agree on a revenue-raising oils and fats tax (worth 600m ecu in a full year) partly because the milk quota arrangements are less economic than those proposed by the Commission, and partly because the expected solution to phasing out Monetary Compensatory Amounts (border taxes and subsidies) will cost at least 400m ecu when the Commission was looking for savings of around 170m ecu.

In their final session on Friday and Saturday the Ministers agreed to price freezes on durum wheat, rye and sugar (instead of 1 per cent cuts on rye and sugar as proposed by M Rocard) and 1 per cent reductions on a range of other products including olive oil, table wines, beef and pig meat.

In addition, the Ministers endorsed the principle that guarantee thresholds will be applied more generally wherever production moves into surplus or where output is rising to such an extent that it is likely to lead to a heavy increase in expenditure.

As well as having to deal with Ireland's demand for exemption from the milk quota and some aspects of the MCA solution, the summit may also have to try to remove one of the UK's reserves on the farm package concerning the removal of the variable beef premium. This bridges the gap between market prices in the UK and production costs which are higher.

Mr Michael Jopling, the UK's farm minister, also withheld approval for the package on the grounds of its cost. Italy (olive oil) and Greece also reserved their positions on some details.

The Ministers will meet again next Monday and Tuesday in the hope that the summit will have made the necessary breakthroughs for them to tie up outstanding details on the most unusual package in the history of the CAP.

French Catholics plan fresh campaign on private schools

BY DAVID HOUSEGO IN PARIS

CATHOLIC parents and teachers' associations in France were preparing at the weekend for a fresh campaign against Government's decisions on the future of private schools.

M Alain Savary, the Minister of Education, announced the decisions late on Friday night. They are to be published as a draft law today or tomorrow.

The Government has backed down, to the indignation of the state school lobby, over many of the points in dispute, but it has held its ground over proposals that would partially assimilate private school teachers into the state system.

The Catholics maintain that endowing private school teachers with the same status of public employees as those in the state sector would ultimately rob the private schools of their specific character.

The Cabinet decided on this compromise at its meeting last Wednesday in the knowledge that the Catholics might unleash a further campaign. But the Cabinet equally felt that it could afford to stand firm on one point having angered its own followers by backing down on so many others.

Two weeks ago some 800,000 people took part in a mass rally in defence of the private schools at Versailles.

The Catholic organisations gave a reserved welcome to M Savary's concessions and were critical of his decisions over the future status of private school teachers. But while they talked of a fresh campaign, they also left the door open to a further compromise.

Norwegian leader 'will discuss Statoil status'

BY FAY GJESTER IN OSLO

MR KARE Willoch, Norway's Prime Minister, has said he would be glad to discuss with the main opposition Labour Party his Government's plans for a change in the status of Statoil, the state oil company.

He agreed it would be valuable if the discussions could produce a compromise which both sides were able to accept. The Government is committed to reducing the company's present powerful role on Norway's continental shelf.

The Prime Minister was replying to a letter from Labour's national executive offering to examine ways in which parts of Statoil's income might in future be channelled directly to the state. The day the letter was published Labour leader Ms Gro Harlem Brundtland and former Industry Minister Mr Finn Kristensen told a press conference a compromise between Government and opposition over Statoil was in the country's interest. Without it, they pointed out, Norway could slip into a situation similar to that in Britain, with the state oil company's status coming up for revision every time there was a change in the Storting majority.

Ms Brundtland and Mr Kristensen said that while Labour was prepared to consider some adjustments in the share of Statoil's earnings that the company was allowed to retain, it could not countenance any change in Statoil's special position as an instrument for implementing national oil policies.

Mr Kristensen said: "We shall never agree to proposals that would reduce Statoil to an 'ordinary' oil company on a level with Norsk Hydro and Saga. Statoil is, in our opinion, the most important oil policy tool we have."

Ms Brundtland said if the Prime Minister accepted Labour's invitation to talk, she hoped the discussions would take place before the Government tabled its planned white paper about Statoil, based on the recommendations of a royal commission which reported early last year. The paper is due before the easter recess.

Hong Kong meetings accelerate

By Robert Cottrell in Hong Kong

BRITAIN and China have accelerated the pace of their negotiations on the future of Hong Kong. Following the tenth round of talks on Friday and Saturday, an eleventh round is to be held on March 26-27. Previous rounds have been spaced at three-to-four-week intervals.

The increased tempo appears to reflect China's desire to finalise an agreement by September at the latest, while Britain is sensitive to pressure from both Hong Kong and the British parliament to make some public statement of progress in the so-far confidential talks.

Such a statement may be forthcoming when Sir Geoffrey Howe, Britain's Foreign Secretary, visits Hong Kong soon — possibly next month. The weekend communique described the tenth round of talks as "useful and constructive," the stock formula used to describe almost all the proceeding rounds.

Schools take first bite at computer studies

BY JOHN DAVIES IN FRANKFURT

ALL SCHOOLCHILDREN in the West German state of Baden-Württemberg are to be taught about computers—just as soon as enough teachers can unravel the mysteries themselves.

The state has decided to introduce computer studies as an integral part of mathematics and other technical subjects such as physics.

"We want to de-mystify the computer," said Herr Gerhard Mayer-Vorfelder, Education Minister.

Baden-Württemberg prides itself on being in the forefront of new technology, a favourite theme of Herr Lothar Späth, the Premier, who faces a state election on March 25. His state is always jostling with its burly neighbour, Bavaria, for the honours of attracting research and production in high-technology fields.

It claims to be the first West German state to bring in computer studies for all children, although, as in other states, some children already have access to computers, especially in the more elite Gymnasium schools.

The state has resisted the temptation to introduce children too early to computers for fear it weakens the traditional stress on "reading, writing and arithmetic." It has also rejected the idea of creating a new subject of "informatics."

But all children in class 9 – aged about 15 – will learn about computers progressively from next year onwards.

One hitch is that of the state's 100,000 teachers, only about 4,000, mostly mathematicians, know enough about computers to teach pupils.

Over the next four years, 16,000 teachers face advanced training before being let loose on classes.

More computers will have to be bought for schools and the state envisages they will cost between DM 10m ($3.84m) and DM 20m, a burden that will fall largely to local community authorities.

Herr Mayer-Vorfelder cautioned against any "computer euphoria"

Default problem for Costa Rica

By Peter Montagnon, Euromarkets Correspondent

COSTA RICA's bank creditors have been told that the country's failure to raise emergency short-term loans means that "occasional situations of default" could now occur on its $4bn foreign debt because of a squeeze on its foreign exchange cash-flow.

The warning came in a telex to bank creditors from Bank of America, which chairs the committee of leading creditors handling Costa Rica's debt rescheduling. Earlier this month, the committee reported that Costa Rica would seek short-term assistance because delay in reaching agreement with the International Monetary Fund had resulted in a shortfall in foreign exchange receipts.

Now the committee has been told by Dr Carlos Manuel Castillo, president of the Central Bank, that Costa Rica had failed to obtain credit from the U.S. Government and from the Bank for International Settlements from which it had planned to seek a $50m loan.

Commercial banks are also refusing emergency finance, although a team of economists from the committee is expected to visit San Jose soon to examine needs for extra funds after the IMF agreement is reached. This is expected to be in mid-April, allowing disbursement of U.S. Government aid to resume before the beginning of May.

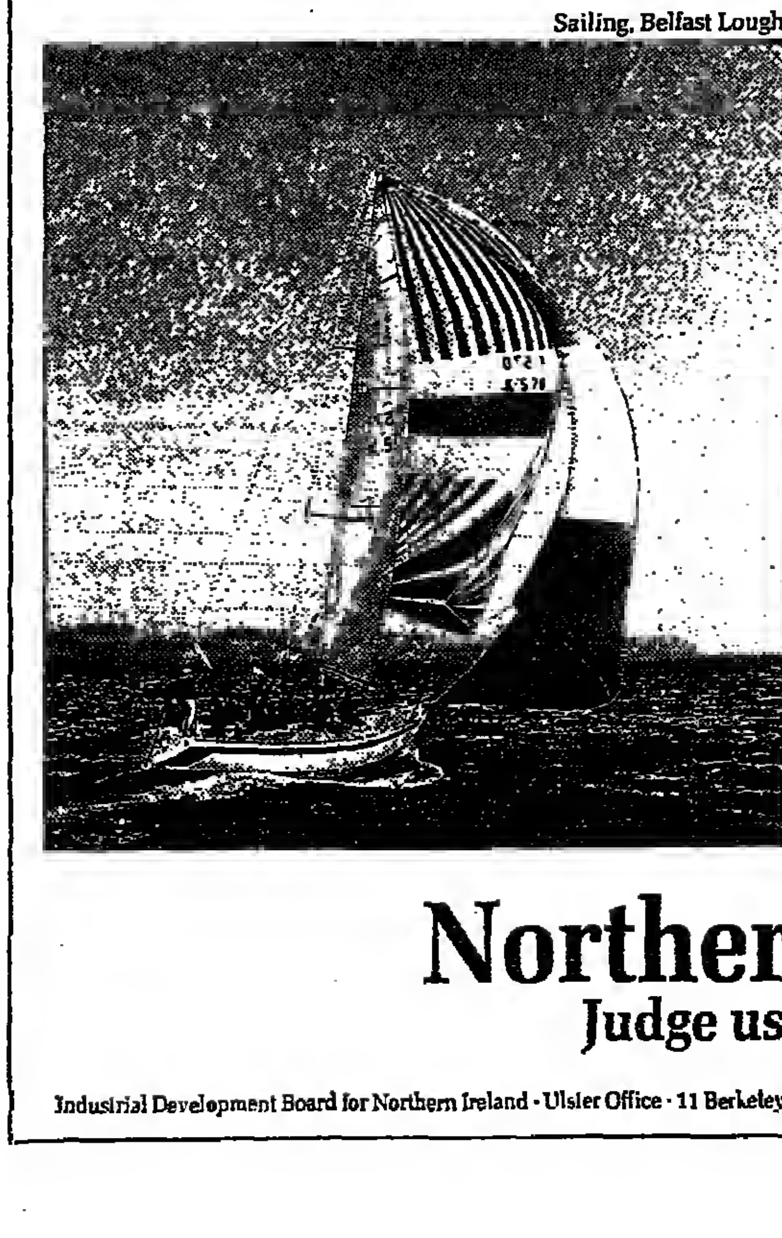
Basque trawler crews defiant

By Tom Burns in Madrid

THE TWO Basque trawlers which were at the centre of a serious diplomatic incident after being detained by France for fishing without permits in the Bay of Biscay returned to their home port of Ondarroa at the weekend with their crews unrepentant and determined to continue fishing in the restricted French zone.

The Valle de Atxondo, which was shelled by a French patrol boat 140 miles off the coast of Brest on February 7, docked on Saturday together with its sister ship Burgoa-mendi to a tumultuous reception. The skippers of both trawlers were last week fined 15,000 each by a French court on charges of fishing illegally.

Sr Jose Maria Arsola, captain of Burgoa-mendi, said he had every intention of returning to the restricted 200-mile French zone of the European Community waters



WORLD TRADE NEWS

Alitalia plans flights to U.S. West Coast

By Alan Friedman in Abano Terme

ALITALIA, the Italian state airline, plans a major expansion of its North Atlantic services, including the introduction of four weekly flights from Italy to Los Angeles.

These will be the first direct flights from the Mediterranean to America's pacific coast, the airline said at the weekend.

The expansion of North Atlantic routes, which are expected to account for L400bn (£170m) of the airline's 1984 turnover, itself predicted to rise by 15 per cent to L3,000bn, will include the restoration after two years of flights to Boston and additional services to New York. Capacity will be increased by 26 per cent on these routes.

The new flights are expected to result in an initial decline in the airline's load factor on north Atlantic routes—the percentage of seats filled per aircraft from 71.2 per cent to 65.4 per cent in 1984.

Alitalia said that its international traffic last year, in line with the rest of the industry, registered zero growth. But international traffic has been up by eight per cent since the beginning of this year.

The airline said its South American business had been hit by the economic crises of various debtor countries. Funds have been blocked and delayed in several countries. Traffic from Venezuela was "in sharp decline"

● Alitalia is considering ordering up to 30 new 150-seater aircraft for delivery in the 1990s. The Airbus A-320 is strongly in the running, but no decision has yet been taken, a senior executive said. The airline is awaiting the outcome of talks between Boeing and Aeritalia, the state aircraft company, over possible collaboration in a new aircraft in which Japanese companies would also be involved.

David Marsh travels the French route to a multi-billion dollar deal

On the inside track to Florida

"IT WAS FANTASTIC. A great experience," beamed Mr Bob Graham, the Governor of Florida, settling back into his plush window seat after taking a VIP ride in the drivers' cabin of France's high speed train.

Zooming through the countryside between Paris and Lyon, he was talking during a 160 mph trip, plus slap-up lunch, laid on to extol the technological delights of the French TGV (Train de Grande Vitesse) system. The trip is so smooth that the driver can nonchantly combine manning the controls and sipping a Kronenbourg beer without spilling a drop.

Florida is expected to decide over the next 12 months whether to choose the TGV or the slightly slower 130 mph Japanese "bullet" train in a multi-billion dollar contract for a planned high-speed rail link between Miami, Orlendo and Tampa. SNCF, the French railways, and the country's main railway equipment manufacturers were trying to convince the officials from the U.S. state that the TGV would do the job best.

Mr Graham, who rode the rival Japanese "bullet" in September, did not want to prejudge the outcome of the state's selection process. But provided the Florida project is given the go-ahead this summer, France—which has launched an assault on the U.S. high speed train market three years after the Japanese started marketing their system—seems to have a major chance of clinching the deal.

State officials said they were "not comfortable" with aspects of the rival's financing plan. The Japanese have offered Florida a network with a more expensive concrete-borne track costing an overall $3.5bn, compared with the TGV offer worth $2bn. "The ultimate question is one of economic viability, said Mr Graham.

The Floridans are also impressed that the French offer would make no call on U.S. subsidies and would be partly financed by revenue from commercial shopping centres built around stations.

SNCF says the Paris-Lyon link, which comes into full service this year will make around FFr 700m (£59m) net profit this year after operating costs, depreciation and financial charges, on receipts of FFr 4bn.

The prospect of a good financial return has even tempted the Swiss-based Compagnie Financiere of the Rothschild family to approach the Floridans with a funding offer. On the important question of "Americanising" the TGV offer, Mr Graham said the French had been more extensive in drawing in other participants to the project.

The French rail equipment group, headed by Alsthom Atlantique, has included the U.S. Westinghouse electrical group in its plans for the Florida link. This follows the U.S. company's involvement in the French rail industry's clinching of two big metro contracts in San Francisco and New York in 1982.

Pan American Airways has been recruited to advise on traffic calculations, while Merrill Lynch the New York securities house—together with the French investment bank Paribas and its New York affiliate Becker—has been drawn into the financing package.

To head the TGV marketing efforts in the U.S., Alsthom last year plucked Mr Robert Blanchette out of the Washington government circuit. Mr Blanchette, a U.S. lawyer formerly with the Federal Rail Administration is gravel-voiced, bilingual and even looks like a Frenchman.

As the head of the French rail consortium TGV Co since May last year, he has stepped up campaigning around the U.S. to hit back at entrenched Japanese competition. Other possible high speed links being studied include New York to Montreal, New York to Washington, Dallas to Houston, Los Angeles to Las Vegas and Colombus to Cincinatti.

The Japanese "bullet" consortium has won a contract to build a Los Angeles—San Diego link. But, says Mr Blanchette, "We represent the cutting edge of technology — nobody comes ahead of us." Claiming that the TGV is a generation ahead of the bullet, he declares: "Each time we present our technology, it's a winner".

The French know that psychological as well as technological weapons are needed in the battle to reverse 70 years of neglect of U.S. railways. A string of officials from other U.S. cities and states will be wooed on the Paris-Lyon line this summer, and Mme Edith Cresson, the energetic French Trade Minister, is leading a business promotion mission to both Texas and Florida around the end of the month

SHIPPING REPORT

Middle East tanker market declines again

FINANCIAL TIMES REPORTER

THE STRENGTH of the Middle East tanker market, buoyed two weeks ago by the Iran-Iraq war—has proven short-lived. Charterers were able to reduce rates considerably last week.

Among the recent deals was a 245,000 ton cargo to Japan at Worldscale 27½ and another of similar size to the U.S. Gulf coast at Worldscale 24½. Medium sized tankers fared better for Middle East business; in one case Worldscale 57½ was paid for a loading of 144,000 tons at the end of March from Kharg Island to Italy.

The West Africa tanker market was well up, with more than a dozen vessels finding employment during the week, compared with only four the previous week. Most were of the 130,000 ton size going to the U.S. Gulf at around Worldscale 37/40.

The Mediterranean market was a little brighter, with an acceleration of inquiries. A 95,000 ton cargo from Turkey to the French Mediterranean was completed at Worldscale 64.

Lloyds has reported another increase in the total idle tanker tonnage. At March 1, it consisted of 1,681 vessels of 82.7m tonnes compared with 1,658 vessels of 79.64m tonnes on February 1. The worsening was mainly due to an increase in large tankers waiting for over two months outside the Gulf.

In the sale and purchase market, Galbraith's said several Panamax bulk carriers were the subject of negotiations, but it appeared that the only vessel actually committed was the Sante Barbara Maru of about 62,300 dwt built in 1972 and selling subject to inspection for close to $5.5m. A 118,000 dwt carrier built in 1977 was said to be receiving offers around $13m.

Sun shines on French negotiations with Fuji

By Paul Betts in Paris

Fuji Electric Company of Japan has signed a solar technology agreement with the joint solar energy subsidiary of two leading State-controlled French companies, Compagnie General d'Electricite (CGE) and Elf Aquitaine.

The accord between Fuji and Photowatt, the CGE and Elf solar subsidiary, involves a research, development, manufacturing and sales agreement in photovoltaic cell technology and in the development of ribbon crystal and amorphous technologies.

Photovoltaic technology involves the conversion of sunshine or sunlight or both into electricity. The French Government and the main French industrial groups in the energy sector have recently decided to concentrate their solar energy efforts on photo-electric or photovoltaic technology.

The latest agreement thus appears to be likely to strengthen their position in the sector in which Japan and the U.S. are considered to be the most advanced.

France currently claims 10 per cent of the world market for photovoltaic arrays (or batteries) with sales last year of FFr 100m (£8.6m). Elf, the French State-controlled oil group, and CGE, the nationalised diversified electronics conglomerate, pooled their photovoltaic interests last November.

The principal French companies involved in the sector are the nationalised Rhone-Poulenc chemicals group, involved in the development of silicon for photovoltaic cells, CGE and Elf in the Photowatt subsidiary; the Total oil group in partnership with the nationalised St Gobain conglomerate; and the Leroy-Somer electrical group.

The French five-year photovoltaic programme envisages investments in this sector of FFr 1.4bn with about FFr 480m being supplied by the Government.

Electric car further down the road

By Our Frankfurt Correspondent

The West German subsidiary of Brown Boveri, the Swiss-based electrical engineers, has taken a step forward in its electric car project by signing a cooperation deal with a Canadian company.

The pact with Magna International of Toronto envisages setting up a joint company to supply parts for an electric car for North American markets. Brown Boveri said that the move was tentative and that no time scale had been set for founding a company.

It said that Magna International, which supplies parts to North American car manufacturers from plants in the U.S. and Canada, would have a majority stake in any joint company.

Brown Boveri has been carrying out development work on an electric car for ten years and foresees further lengthy research and tests. But Dr Herbert Gassert, chief executive of the German subsidiary recently expressed optimism about the project, declaring that series production of the eletrical parts for such a car might be possible in the second half of the 1980s.

Brown Boveri has been aiming to develop electrical parts for a four-seater car with a range of 155 miles

Japanese typewriter company considers European production

BY JOHN DAVIES IN FRANKFURT

BROTHER INDUSTRIES, the Japanese office equipment concern, is considering setting up a plant in Europe to assemble electronic typewriters. Herr Harald Rudloff, head of Brother's West German operation, said the plant might be set up in England, Scotland or Ireland, with West Germany rather less likely to be chosen.

He said that the Japanese parent company was investigating a possible European production operation to overcome delivery delays resulting from increased demand. Herr Rudloff criticised the complaint lodged with tha European Commission in Brussels by local typewriter manufacturers, who allege Japanese electronic typewriters are being imported at dumping prices.

He denied that his own company was involved in dumping, adding: "If the European Commission holds a dumping inquiry, we heve nothing to fear."

Brother has about 10 per cent of the West German market for mechanical typewriters and about 25 per cent of the local market for compact electronic typewriters.

Herr Rudloff said all Japanese companies had only a small market share in office electronic typewriters—as opposed to the compact variety—and in the more traditional electro-mechanical typewriters.

Brother, which has been steadily building up sales in West Germany for more than 20 years, expects a sharp increase of 50 per cent in its sales revenue to between DM 90m and DM 100m (£22-£25m) this financial year. Typewriters are expected to account for about 75 per cent of revenue.

Brother is moving increasingly into computer peripherals and plans to introduce four new models of computer print-out devices at the Hanover Fair next month. It foresees increased demand for such products with the growing use of personal and office computers.

Brother produced and sold nearly 1.1m typewriters worldwide in 1983, giving it close to 15 per cent of the world market.

West German video parts plan

Robert Bosch, the West German automotive parts and electrical concern, is considering joining Matsushita of Japan in a new venture to produce components for video cassette recorders (VCRs) and colour TV sets, John Davies writes.

The two companies are already partners in assembling VCRs of the VHS format. Matsushita now envisages producing VCR and TV components at their Oskrode site by next September. Bosch is willing to lease premises, but has not yet decided whether to take a stake in the possible venture.

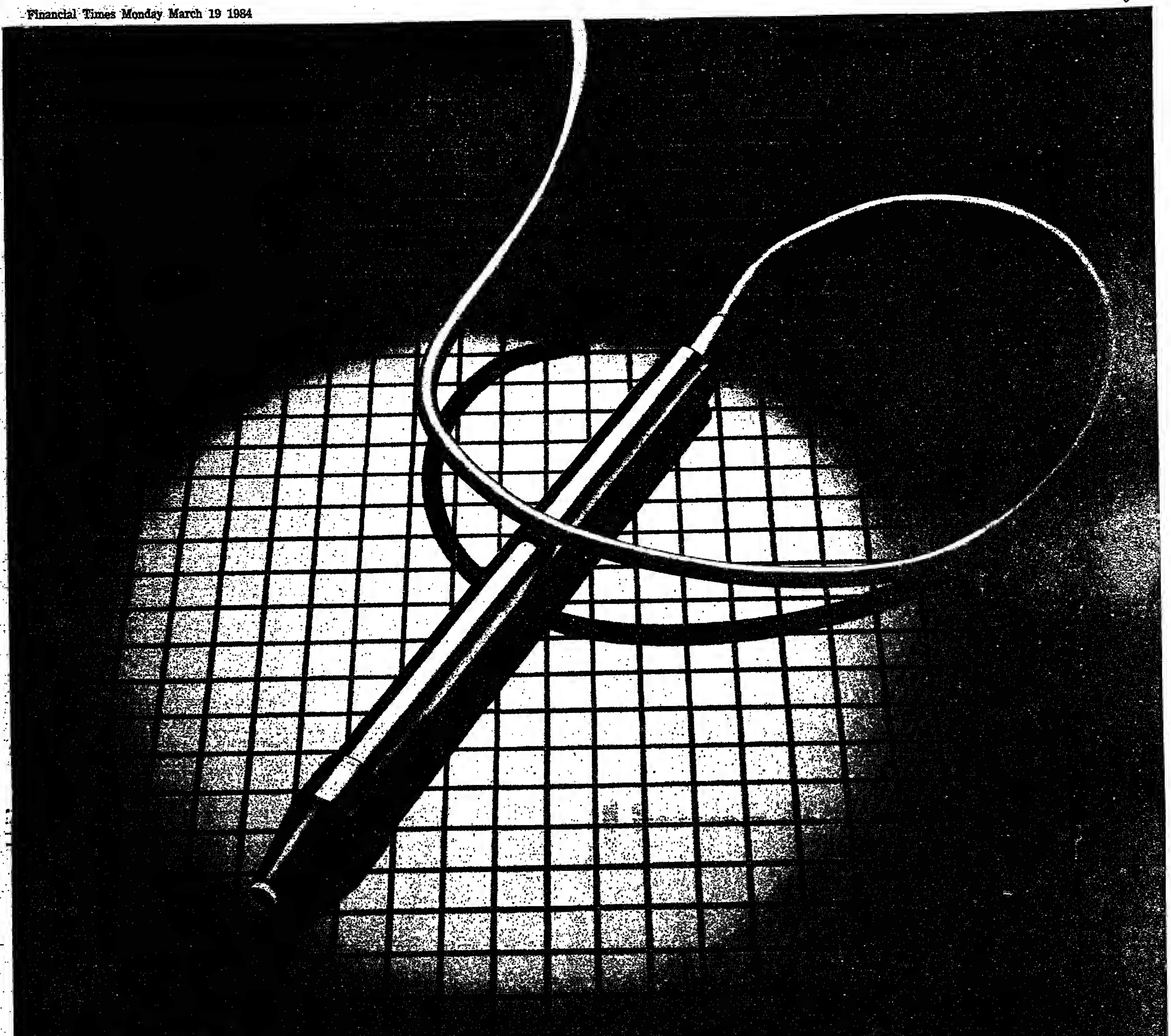
Bosch has a 35 per cent stake in the VCR assembly operation, and Matsushita holds the remaining 65 per cent.

WORLD ECONOMIC INDICATORS

UNEMPLOYMENT

		Feb. '84	Jan. '84	Dec. '83	Feb. '83
UK	000s	3,186	3,200	3,079	3,199
	%	13.4	13.4	12.9	13.4
U.S.	000s	8,801	9,026	9,195	9,429
	%	7.8	8.0	8.2	10.4
		Jan. '84	Dec. '83	Nov. '83	Jan. '83
Japan	000s	1,485	1,430	1,520	1,600
	%	2.7	2.6	2.6	2.8
W. Germany	000s	2,539	2,349	2,193	2,487
	%	9.4	8.7	8.1	9.2
France	000s	2,252	2,227	2,223	2,130
	%	9.9	9.8	9.7	9.3
Netherlands	000s	862.7	855.6	837.0	776.1
	%	15.4	15.3	15.0	13.9
Italy	000s	2,878.4	2,830.1	2,805.0	2,704.7
	%	12.7	12.5	12.4	12.0
Belgium	000s	601.7	606.5	613.6	579.8
	%	14.7	14.8	15.0	14.2

Source (except U.S., UK, Japan): Eurostat



"The pen is mightier than the sword"
(not to mention the railway signal lever).

The marshalling yard at Wolfurt, Austria, serves a particularly dense rail crossroads between Switzerland, Germany and Austria.

Thirty kilometres of track are controlled by 92 points and 227 signals.

The points and signals are controlled not by levers but by a computer.

And the computer is controlled by a pen.

As you might suspect, this is no ordinary pen. It is, in fact, a light-sensing pen.

Instead of keying commands into the computer in the conventional way, operators simply touch the railroad layout symbols on the computer's two video display screens with the light pen.

The computer checks that the proposed move is feasible and safe, then sets up the programmed path, changing points or working signals as necessary.

This entirely new system was designed and built by ITT in Austria. It has now completed its trial year for the Austrian Federal Railway and further orders have been placed.

Which is good news for Austria's railways.

Not to mention ITT's shareholders.

The best ideas are the ideas that help people. ITT

European Headquarters, Avenue Louise 480, 1050 Brussels, Belgium.

FT COMMERCIAL LAW REPORTS

U.S. metal fraud case can proceed

ALCI METALS (LONDON) LTD METALL UND ROHSTOFF AG AND ANOTHER

Court of Appeal (Lord Justice Ackner, Lord Justice Purchas and Lord Justice Parker): March 13 1984

WHERE A change of circumstances follows the grant of an injunction to restrain concurrent foreign proceedings and removes one of the major disadvantages of those proceedings, an appellate court may reassess the balance of advantage and disadvantage as between the litigants, and should set aside the injunction if its retention would lead to a preponderance of disadvantage to one party over advantage to the other.

The Court of Appeal so held when allowing an appeal by ACLI Metals (London) Ltd from Mr Justice Staughton's order restraining it from proceeding in New York against Metall und Rohstoff AG (M & R) and Associated Metals and Minerals Corp (AMMC).

LORD JUSTICE ACKNER said that M & R, a Swiss corporation, traded in aluminium metal, and ACLI, an English company, was a ring-dealing member of the London metal exchange.

AMMC, a New York company, was the parent company of M & R.

It was alleged that a massive fraud was conceived and directed in New York by officers of AMMC, which resulted in millions of dollars of losses to ACLI.

An English action was begun by M & R, arising from the buying and selling of aluminium by M & R through ACLI.

ACLI served a defence and a counterclaim. On October 11 it commenced an action against AMMC in New York. The claim covered substantially the same matters as were alleged in its counterclaim in the English action.

On November 1, AMMC served notice of motion in the New York action for an order that the complaint be dismissed on the ground of *forum non conveniens.*

On November 3 M & R issued a summons in the English Commercial Court for an injunction restraining ACLI from prosecuting the New York action. It also asked for an order that AMMC be added as a defendant to the counterclaim.

On November 25, AMMC issued a writ against ACLI claiming a declaration of non-liability to ACLI and a summons for an injunction against ACLI.

Thus, on November 30, when Mr Justice Staughton began the hearing of the summonses, there was a multiplicity of proceedings. The nature of the New York dispute was virtually a mirror image of the dispute in the counterclaim in the English action.

ACLI could have joined AMMC as an aditional defendant to its counterclaim. It did not choose to do so because it considered that in respect of a fraud allegedly conceived and directed in New York by a New York corporation, it was more in its interests to sue in New York.

Mr Justice Stanghton granted an injunction sought by M & R to restrain ACLI from continuing the New York proceedings.

It was against that decision that ACLI now appealed.

Mr Justice Staughton properly directed himself as to the law in the following respects: that to justify the grant of the injunction it had to be established that ACLI was amenable to the jurisdiction of the English court and that justice could be done there at substantially less inconvenience; that the injunction would not deprive ACLI of a legitimate personal or juridicial advantage which would be available to it in the American proceedings; that the jurisdiction to restrain proceedings abroad was to be exercised with extreme caution; and that the principles governing the exercise of the court's discretion were the same whether the remedy sought was a stay of English proceedings or a restraint on foreign proceedings.

The judge said that English courts were the natural forum. He was satisfied that justice could be done in the UK at substantially less inconvenience and expense than in the U.S.

He concluded that the causes of action available to ACLI in New York were not more extensive than in London; that there was no difference in the standard of proof between England and New York; and that punitive damages were available in England, as they were in New York. Therefore, he decided, there were no substantive advantages in hearing the case in New York.

His conclusion that ACLI had an undoubted right to claim punitive damages in the English proceedings was criticised by ACLI.

There was no decision directly in point, but it was clear from available *obiter* that ACLI's entitlement to claim punitive damages if it succeeded in its claim was, at best, arguable.

If the judge did take that factor into account it would not have merited much weight. Viewed in isolation it would not justify the court in interfering with his decision.

The judge accepted that "particularly in the case of covert fraud" the U.S. procedure of pre-trial discovery and depositions could be of great value to a plaintiff, and that there were procedural advantages for ACLI in the New York suit.

ACLI complained that he did not give sufficient weight to that advantage.

The assessment of weight to be given to a factor and the balancing of factors on one side or the other, were matters for tha discretion of the judge, unless it were shown that no reasonable judge would have reached such a conclusion.

Mr Justice Staughton was not obliged to find that the procedural advantage on its own was conclusive. He concluded that the multiplicity of suits, which was created by ACLI by choosing not to join AMMC as defendant to its counterclaim, was a significant disadvantage to M and R. In doing so he took the right matters into account, and not the wrong ones.

In America there was a constitutional right to claim trial by jury, whereas in the English courts it was a matter for the exercise of the court's discretion.

Since the case was likely to require prolonged examination of documents and accounts, the judge rightly concluded that it was most unlikely that jury trial would be ordered in the UK, that trial would take much longer in America with a jury, and that the dispute would be much better tried by a judge alone.

During the course of the present appeal, ACLI announced that it was prepared to undertake to exercise its right to claim trial by a judge alone in its American proceedings.

Mr Littman, for M and R, submitted that the court should *ignore that change of heart since* ACLI had had the opportunity of making the concession when the disadvantage of jury trial was first raised, and had refrained from doing so.

The court could not disregard it. If there had been legislation between the hearing of the summons and the appeal which made trial by judge alone obligatory in New York, it would have had to have regard to the change of circumstances.

If a party, after reflection, decided not to exercise its right to claim jury trial, then that must also be a change of circumstances following the judge's order.

The judge had also concluded that to super-add to the English procedure the New York procedure for discovery was a disadvantage of substance. He reached that decision because in his view it was nearly certain that there would be no trial in New York in that the English action would come on first and determine the issues between the parties.

The evidence and inquiries made of the commercial clerk showed that the probability was that both actions would come on at about the same time. Thus the point as to timing must be disregarded.

In view of the error made by the judge in treating the question of timing as a powerful factor, and the much less important error in regard to his acceptance of a clear right to claim punitive damages in England, and in view of the change of circumstances in relation to jury trial, the exercise of his discretion should be set aside.

The appeal should be allowed and the injunction quashed, subject to ACLI's undertaking to claim trial by judge alone in the New York proceedings in lieu of trial by judge and jury, and, as offered in the course of the hearing of the appeal, to delete from its defence and counterclaim all references to AMMC, thereby reducing the burden of overlapping discovery in the two actions.

Lord Justice Purchas gave a concurring judgment. Lord Justice Parker, also concurring, said that before an English court should stop proceedings in a foreign defendant's own court, a very substantial balance in *favour of the defendant* must be shown for, *prima facie,* his own courts should be competent to protect him.

For ACLI: Anthony Grabiner, QC, and Nicholas Stadlen (Freshfields). For M & R: Mark Littman, QC, and Ian Geering (Herbert Smith & Co).

By Rachel Davies
Barrister

Airline to challenge ruling

BY RAYMOND HUGHES, LAW COURTS CORRESPONDENT

PHILIPPINE AIRLINES is to challenge *a decision to revoke its per*mit to operate into Gatwick Airport, near London.

It has been given leave in the High Court in London to apply to *have the decision by the Secretary* of State for Transport quashed.

The airline denied an allegation *that it was in breach of an aviation* treaty between the two countries. The airline was not a party to the treaty and, therefore, was not bound by it, Mr Denis Henry, QC *for the airline, told Mr Justice* McNeill.

UK NEWS

BL may go overseas for parts, suppliers told

BY ARTHUR SMITH, MIDLANDS CORRESPONDENT

AUSTIN ROVER, BL's cars division, in a move which could have serious consequences for Britain's troubled motor components industry, is warning suppliers that orders will be switched overseas unless productivity and prices can be improved.

Concern is mounting within Austin Rover that its "buy British" policy could be backfiring. In order to ensure the long-term future of domestic suppliers, the company entered into two and three-year agreements with a dozen major companies, accounting for more than 25 per cent of annual requirements.

But Austin Rover believes that only one or two companies are likely to deliver on the bargain. The trade-off involved guaranteed prices in return for improvemeots in productivity, quality and delivery that would eventually be reflected in lower costs.

"We cannot give open-ended support to suppliers who year after year fail to become as efficient as competitors in Europe and further afield," an Austin Rover spokesman said last night.

Austin Rover has given a warning that up to 45 per cent of supplies, compared with the preseot 15 per ceot, could be sourced from abroad. "How much of that business is retained within the UK is not a matter for us but for our suppliers," it says.

The threat to the components sector and the importance of Austin Rover is underlined by a research study, commissioned by the West Midlands County Council, and sooo to be published.

On the one hand Austin Rover had to convince suppliers that its new models would increase volume and that product developmeot would continue. One the other hand, component companies had to have the confidence to invest in new plant and machioery. "The fundameotal problem is one of trust and good management, not money," the report says.

Underspending on defence put at £280m

By Bridget Bloom, Defence Correspondent

BRITAIN'S defence budget is forecast to cost some £280m less than was planned, even taking, into account a £240m cut imposed by the Treasury last July.

The substandial underspend is apparently largely on the procurement of weapons systems. According to figures published by the Treasury accompanying last week's budget, actual expenditure on buying arms will be £7.1bn instead of the £7.5bn planned a year ago.

Overall, defence expeoditure for 1984–85 is expected to total £15.28bn against the original planned total of £15.8bn. Adjusted for the £240m cut and certain other payments, the net underspend is believed to be £280m.

The Ministry of Defence yesterday acknowledged that it had underspent its budget, but it emphasised that after a change in the governmeot's accounting rules last summer the Ministry – would not lose the money.

In the past, if an underspend looked likely, the Ministry called in contractors bills early in an effort to end the year with balanced books.

The Ministry suggested yesterday that the underspend had been across the board though mainly in the procurement field. No major projects have been cut

TUC rifts grow over government relations

BY JOHN LLOYD, INDUSTRIAL EDITOR

THE TUC general council faces deep ond damaging divisions over its future relations with the Government – an issue which refuses to be finally resolved.

Today's special meeting of the TCC general council will see a stark clash betweeo those who wish to continue the TUC's suspension of its membership of the National Economic Developmeot Council (NEDC), and those who wish to end that suspension.

A further clash is expected at Wednesday's meeting of the Employment Policy and Organisation Committee (EPOC), which will debate a paper strongly justifying the TUC's policy in the National Graphical Association/Stockport Messenger dispute last December.

The NGA question, and the narrow victory of the centre-right in refusing to endorse unlawful action, remains a live and cootentious one.

The TUC office paper, a review of the operation of the 1980 and 1982 Employment Acts, makes clear that most unions have taken the legal optioo of not challenging the legislation when it was invoked against them by employers. It is seen by left-wingers as a marker for the bitter debate which is sure to come at the Congress next autumn.

Mr Bill Keys, the Epoc chairman and general secretary of the print union Sogat'82, is a critic of the way the affair was handled by Mr Leo Murray, the TUC geoeral secretary.

Mr Keys bas made it clear he will not defend the general council majority position, and may eveo speak against it from the Congress floor.

The office paper to today's special council meeting is also an uncompromising one, presenting a powerful argument for the usefulness of NEDC to the unions and the necessity of rejoining it.

It is expected to draw fire for refusing to consider the need to give a clear signal to the Government of the TUC's cootinued displeasure over the banning of unions at the Cheltenham communications headquarters – the original reason for the NEDC boycott.

Mr Murray's positioo in this is seen as isolated, though general council members have drawn back from an all-out attack. Some who remain hostile to rejoining the NEDC are anxious not to personalise the issue and to find a compromise.

It is clear, however, that his strong lead in bringing the TUC in from the cold of total hostility to the Governmeot has made Mr Murray unforgiving foes oo the TUC's powerful left-wing

Dilemma for Tories on Oman affair

By Peter Riddell, Political Editor

THE AFFAIR involving Mrs Margaret Thatcher, the Prime Minister, and that of her soo, Mark, in bidding for an overseas contract in Oman, is now reaching a critical point for both the Government and Labour opposition.

After nine weeks of allegations, disclosures and angry official denials, the matter has, to many people's surprise, not gone away but is still much alive with new evidence appearing and Conservative and Labour MPs tabling rival motions in the House of Commons.

The affair turns on Mrs Thatcher's visit to Oman in 1981, the presence of her soo there at the same time, the disclosure of her soo's employment as consultant to the Cementation International subsidiary of Trafalgar House and the subsequent award of a £300m university contract in Oman to that company.

There is oo evidence of any dishonesty on Mrs Thotcher's part. Instead, the Labour oppositioo questioning has focused on the potential conflict of interest.

The issue is whether Mrs Thatcher knew of her son's involvement with the Cementation bid to wio the contract ot the time of her Oman visit, and the extent to which Mr Mark Thatcher may have exploited his mother's position in order to further bis own commercial interests.

For the Government, the immediate problem is how to end a row which is now undoubtedly a major distraction for the Prime Minister, both in time and worry.

For the Labour Party the question is whether the leadership should formally take up the issue of initiating a full-scale debate in the House of Commons. This would raise the stakes and might risk a crushiog rebuff.

Mrs Thatcher has said that on her Oman visit she expressed interest in British participation in all aspects of the university project, though no particular company was mentioned at any time.

Senior Tories see a dilemma since Mrs Thatcher cannot answer what they, and she, regard as unjustified attacks without compromising the privacy of her family.

Poor season prompts BA tours review

BY ARTHUR SANDLES IN LONDON

BRITISH AIRWAYS is reassessing its tour operations activities after a winter selling season in which its main brands, Sovereign and Enterprise, have lost considerable market share to rivals Thomson, Intasun and Horizon.

After only eight months in the job Mr Alan Wadell, the general manager of Sovereign/Enterprise, has been offered another post in BA "which he is considering at the moment." He has been replaced by Mr Terry Grew.

Meanwhile, another major arm of BA tour operations, Martin Rooks, is for sale. In this case the company has been doing well, but it is a direct-selling organisation and bypasses travel agents. BA has decided this provides an unnecessary area of friction with agents.

Several companies, notably Intasun, have expressed an interest in Martin Rooks.

BA denies that Mr Waddell's departure is directly connected with recent indications that Sovereign and Enterprise have been faring badly. "We are not just after market share. We are in the business of revenues and yield."

The airline argues that it was one of the few travel groups to suggest that there might not be much growth in the market this year. Thomson was among those companies which predicted an additional 1m package tourists out of Britain this year.

The total market now seems to be marginally down on last year. In 1983, however, there was a sudden surge in late bookings and many in the industry suggest that the same thing will happen in 1984.

News of BA's problems comes at a time when the industry is examining the cost of the winter price war. If the market does not increase in size then the severe cut in margins will cause problems for those organisations which have not taken business from others.

Thomson, Cosmos and Horizon are thought to have done particularly well in the winter sales season. "For the summer of 1984 we have confirmed bookings of 270,000," says Mr Bruce Tanner, Horizons chairman. "This is 32 per cent more than at this time last year. Nearly 60 per cent of our summer capacity has now been sold."

Horizon last week reported pre-tax profits of £12.5m for 1983.

EARLY STATEMENT EXPECTED FROM PARTNERS IN SCOTT LITHGOW VENTURE

Rig talks at decisive stage

BY MARK MEREDITH, SCOTTISH CORRESPONDENT

NEGOTIATIONS are at a decisive phase over the completion of Britoil's cancelled order for a £88m semisubmersible drilling rig at the Scott Lithgow yard on the Lower Clyde.

Trafalgar House, the shipping and property group, and Howard Doris, the Anglo-French offshore construction company, joined forces this month in an effort to takeover the yard from British Shipbuilders. But they have first had to get the approval of Britoil over the completion of the rig order which the oil company cancelled in December when construction was two years behind schedule.

Managers for the joint venture, in which Trafalgar House holds 7.5 per cent and Howard Doris 25 per cent, said last week they thought there could be a decision this week.

Talks have been going on not only with Britoil but also with the trade unions at Scott Lithgow. With Britoil's go-ahead in hand, the consortium must then complete the takeover with British Shipbuilders and get the approval of Government for a private takeover.

The rig, which is about one-third finished, is wanted by Britoil for its deep-water drilling programme.

An essential part of the talks between the two companies and Britoil has been over the technical competence of the venture to complete the order. The Swedish offshore yard, Gotaverken Arendal, which has built semisubmersibles, is due to be brought in to give advice.

Questions such as the price of the order, the price for the yard, the type of works agreement with the unions and the level of any government financial assistance have to be resolved before work can be resumed at Scott Lithgow.

Britoil is thought to be unwilling to pay more than the original £88m price for the rig, while the two companies' quote is thought to be around £130m. The difference may partly be absorbed as one third of the rig is already completed and could be discounted.

The Government pledged £185 to "wipe the slate clean" for a private takeover of the yard. It is not known how much of this will go on meeting the redundancy payments of workers not required, and how much may go towards underwriting the transfer.

Some 3,000 of a workforce which numbered 4,000 at Christmas, remain at Scott Lithgow. The new consortium is anxious to negotiate a works agreement with them similar to those at other offshore yards.

Industry row over £200m RAF order

BY MICHAEL DONNE, AEROSPACE CORRESPONDENT

A BATTLE is developing in the UK aerospace industry over the Royal Air Force's plans for a new basic trainer aircraft to replace its ageing Jet Provosts.

It centres on an order for more than 150 aircraft, worth initially about £200m, but probably more than double that during the in-service life of the aircraft to the end of the century, with spares, replacement aircraft and other support costs.

The struggle has arisen because the RAF has cut an original list of 17 contenders from 15 companies to a "shortlist" of four aircraft, only one of which is British.

The aircraft on the short-list are: the Australian Aircraft Consortium (AAC) A-20, a derivative of the A-10 trainer already under development for the Royal Australian Air Force; the Brazilian Embraer EMB-312 Tucano, now entering service with the Brazilian Air Force; the Swiss Pilatus PC-9, a derivative of the PC-7 which is widely used by the Swiss and other air forces; and the British Firecracker, built by Firecracker Aircraft of the Isle of Wight, with two prototypes flying and one due to fly soon.

All these aircraft use the Canadian Pratt & Whitney PT-6A turbo-propeller engine of about 550 shaft horsepower. No small British-designed and built turbo-prop engine exists.

The RAF and the Ministry of Defence say foreign-built designs have had to be included because of the almost total lack of British-built designs.

Originally the RAF was studying both jet and turbo-prop aircraft as possible trainers, but decided to restrict its choice to turbo-prop aircraft because of the cheaper initial purchase, flying and maintenance costs.

An increasing number of MPs and trades union representatives believe, however, that the RAF should support the UK aerospace industry by encouraging the development of a new British turbo-prop trainer rather than buying any foreign type.

The Ministry of Defence has stipulated that the winning design must be built in the UK.

Trafalgar reviews P&O bid

By Ray Maughan

TRAFALGAR HOUSE, the shipping, construction and energy group, is still "actively reviewing" the possibility of making a new bid for Peninsular & Oriental Steam Navigation following clearance last week from the Monopolies Commission.

The group stressed yesterday, however, that no decision had been taken, no date had been set for a board meeting to consider the matter and the subject of P&O was not even an "agenda item" as yet.

The stock market has been anticipating for some time a new offer for P&O, and the group now has a capitalisation for more than £430m against the £290m price offered by Trafalgar last May.

Trafalgar must reach a decision within 30 days of the Commission's published verdict if it wants to bid quickly. Alternatively, it would be free to make a new offer at any time after the first anniversary of the Monopolies reference on May 23. But, throughout the course of the Monopolies investigation, Trafalgar gave no indication of its eventual decision.

Rival Victor offer likely

By Jason Crisp

BRITAIN's Applied Computer Techniques (ACT) is not the only company trying to buy the computer business of Victor Technologies. A spokesman for the bankrupt U.S. corporation said yesterday: "We are negotiating with other parties."

Last week, ACT said it had an agreement in principle to buy the marketing rights outside the U.S., and worldwide rights to Victor's Sirius personal computer.

ACT said yesterday that it hoped final details of the deal would be concluded by the end of this week.

Aid group seeks policy review

By Quentin Peel

AN INDEPENDENT group of British aid specialists has called for a Royal Commission to be set up to review all aspects of British Government policy affecting the poorest developing nations, including both aid and trade policies.

In a report published today, they argue that a whole range of Government actions, including its overall monetarist economic policy, has had disastrous effects on Third World economies.

The Independent Group on British Aid includes representatives from Christian Aid, Oxfam, the Overseas Development Institute and the World Development Movement.

It claims that policies of trade restraint have severely damaged the exports of the poorest countries, while high interest rates in the West have "virtually bankrupted" much of the Third World.

Key recommendations include: granting duty-free access to the UK market and exemption from restrictions of the Multi-Fibre agreement; British Government initiatives in proposing new international arrangements to stabilise the commodity earnings of developing countries; and an easing of IMF terms for credit to take account of the need for long-term structural adjustments in the Third World.

BUSINESSMAN'S DIARY

UK TRADE FAIRS AND EXHIBITIONS

Current
Daily Mail Ideal Home Exhibition (01-222 9341) (until April 1) — Earls Court

March 19-22
Materials Testing Exhibition (St Albans (0727) 63213) — NEC Birmingham

March 20-23
Central and Local Government Show and Conference (01-680 4200) — Wembley

March 21-23
Fashion Fabrex (01-379 5568) — Olympia

March 21-23
Exhibition of Goods and Services for Conference and Exhibition Organisers — CONFEX (01-908 2122) — Barbican

March 25-27
Shoe Show (01-739 2071) — Kensington Exhibition Centre

March 28-30
The New Motor Trader Show (01-643 8040) — Wembley

April 2-6
International Heating, Ventilation, Air Conditioning and Building Services Exhibition (021-705 6707) — NEC Birmingham

April 3-5
Computer-Aided Design Conference and Exhibition—CAD (01-643 8040) — Brighton

April 9-12
Audio Visual Exhibition (01-688 7788) — Wembley

April 9-13
International Fire Exhibition—LIFE (01-387 5050) — Olympia

April 11-14
Drillex '84 (0277 220609) — Kenilworth

April 16-18
Solids Handling Exhibition—SOLIDEX (Uxbridge (0895) 59431) — Harrogate

May 1-3
All Electronics ECIF Show — Barbican

May 1-3
Fibre Optics Exhibition and Conference (0799 26699) — Whitbread Porter Tun Rooms

OVERSEAS TRADE FAIRS

March 23-26
Fast Food Exhibition (01-439 3964) — Paris

March 24-26
International Footwear Trade Fair (01-493 3393) — Dusseldorf

March 30-April 1
Overseas Property Exhibition (01-487 2622) — Hong Kong

April 2-4
Saudi Oil Show (01-486 3741) — Saudi Arabia

April 3-6
International Technology Exchange Fair—TechEx '84 (01-584 5749) — Florida

April 4-11
Hanover Fair (01-651 2191) — Hanover

April 11-15
International Fur Trade Fair (01-734 0543) — Frankfurt

April 24-27
Food and Hotel Asia (01-486 1951) — Singapore

April 30-May 4
Direct Marketing Symposium and Exhibition (01/69 48 20) — Montreux

May 10-13
Asian Automotive and Accessories Exhibition (Guildford (0483) 38085) — Singapore

May 10-16
International Packaging Exhibition and Display of Confectionary Machinery — INTERPACK (01-493 3893) — Dusseldorf

BUSINESS AND MANAGEMENT CONFERENCES

March 21
Chatham House: Korea—hard decisions facing a successful economy (01-930 2233) — 10, St James's Square, SW1

March 22-23
SERC/Netlon: Symposium on polymer grid reinforcement in civil engineering (01-836 3261) — Institution of Civil Engineers, SW1

March 23
British Chamber of Commerce for Belgium and Luxembourg: The small and medium-sized enterprise as an instrument of foreign investment in Belgium ((02) 219 07 88) — Brussels

March 27-28
FT Conference: The second automated manufacturing conference—tools for competition (01-621 1355) — InterContinental Hotel, W1

March 28
ESC: Acquiring and funding a U.S. business (Uppingham (0572) 822711) — Selfridge Hotel, W1

March 28
City Business Conferences: Setting up a portable pension scheme (01-727 5120) — CFS conference centre, W1

March 28
Liffe: Financial futures for pension funds (01-623 0444) — City Conference Centre, EC3

March 28-29
Gulf Energy Convention (01-486 3741) — Bahrain

April 3
CommEd: Telecommunications liberalisations taking stock (01-733 3456) — Waldorf Hotel, WC2

April 3
Faculty of Law: Tax avoidance after the House of Lords' decision in *Furniss v Dawson* (01-283 1030) — City of London Polytechnic, EC2

April 3-5
Marintech North West: Ultrasound for the offshore and oil industry (061-273 3278) — Manchester University

April 4-6
ISBA: World Industrial Advertising Congress (01-499 7502) — Paris

April 5-6
FT Conference: Multinationals and European integration (01-621 1355) — InterContinental Hotel, W1

April 6
IFS: the Budget and the Finance Bill (01-828 7545) — St Ermins Hotel, SW1

April 8-10
Metal Bulletin: 2nd International Conference on Copper (01-330 4311) — London Marriott Hotel, W1

April 11-12
FT conference: European banking (01-621 1355) — Milan

April 25-27
Insig: Banks and computers (1) 763.07.24) — Paris

April 26-28
Progress Foundation 7 IMF: money—a search for common ground ((091) 68 92 69) — Lugano, Switzerland

May 3-4
FT/The Banker: world gold conference (01-621 1355) — Hong Kong

Anyone wishing to attend any of the above events is advised to telephone the organisers to ensure that there has been no change in the details published.

UK NEWS

Boffins get a taste for business

Commercial links between university research and business have spawned a wide range of companies. *Peter Marsh reports.*

FROM SOYA SAUCE to satellites and from bacteria to bat detectors – a new breed of entrepreneurs in Britain's universities is venturing out into the world of commerce.

In the past few years Britain'a 45 or so universities have significantly increased their industrial activities. *Sometimes an academic institution* or an individual researcher sets up a new company to exploit scientific and technical ideas.

Alternatively, academics can participate in a variety of less formal activities, for example by taking on part-time consultancy work with industrial organisations.

The results vary between the spectacular and the ordinary. Dr Hermann Heuser, an ex-physics researcher at Cambridge, has become a multi-millionaire in a few years through his founding, with Mr Chris Curry, of the microcomputer company Acorn.

Cambridge is Britain's best example of a university town that has successfully "spun off" new companies. Over the past decade at least 50 such enterprises have started in this way.

At the other end of the spectrum is *Dr Frank Grunfield*, a 26-year-old electronics specialist from Warwick University. Financial institutions *have three times rejected his re*quests for cash to start up a company in thin films for semiconductors. Undaunted, Dr Grunfield has taken out a second mortgage on his house and has just opened for business in Coventry.

Perhaps Dr Grunfield can take heart from Professor David Rhodes, who combines n teaching job at *Leeds University* with the post of managing director of Filtronic Components. The company makes specialist electronic hardware.

To fund his company, Professor Rhodes raised – with some difficulty – £1.5m from British investors.

"My biggest problem was my title. I had to gain credibility from the financial world which thought I was a boffin with my head in the clouds," Prof Rhodes said.

Aberdeen University has had probably the most institutional success in promoting small businesses. About two years ago it set up a holding company to manage its relationships with industry. Aberdeen University Research and Industrial Services (Auris) supervises nine separate enterprises, whose interests include special bacteria for in*dustrial processes, the production* of TV films and the sales of old maps.

Auris also has *a share in six* joint-venture companies whose shareholders include industrial groups such as Esso and BP. These enterprises sell, among other things, broad-leaved trees and telemetry systems that record the movement of animals.

Mr Keith Sellar, the company's chief executive, an ex-commercial *lawyer, came to the university os*tensibly for a 2 hour a week retirement job. Now he works full-time presiding over 40 employees and an annual turnover of £450,000.

"We are a catalyst for setting up a new economic infrastructure in this part of Scotland, based on services to the oil industry, electronics and medical technologies."

Three main factors are behind the increased willingness of universities to entangle themselves in industry. First, and most important, are the Government's cuts in education spending.

These have reduced the income (now running at about £1bn a year) that the universities receive through the University Grants Committee (UGC).

Although the UGC cuts are supposed to have spared science and technology, many research departments have been hit. Thus, academic institutions have turned to industry to fund research projects.

But by its provision for ancillary *items such as maintenance of build*ings and technical support, the UGC cash also pays for research work.

Lord Flowers, rector of Imperial College, London, and chairman of the Committee of Vice Chancellors and Principals, says: "Most economy measures have some good effects and this has been one of them."

UGC figures show that companies contribute some £21m a year in research funds to universities, about 10 per cent of universities' total research grants. But if sums paid less formally to individual researchers and departments are included the total cash flow from industry is roughly double that, in *some estimates suggest.*

A second reason for closer links is the changing attitudes of the commercial and financial communities.

"Industrialists are becoming more patient in their attitudes toward investments," says Professor Derek Smith, chairman of Udil – the University Directors of Industrial Liaison. Prof. Smith is also managing director of QMC Industrial Research, the industrial arm of Queen Mary's College, London.

"In their search for new ideas that will give a good return on investment, people are going upstream in the risk business," he says.

"Universities are acquiring a track record in industrial work. We can do a reasonable job in filtering oot the good ideas from the bad."

Prof. Smith's own company sells goods and services worth some £850,000 a year. It has a full-time staff of 30, supplemented by other university employees when required. The company's products include instruments to detect bat sound and hardware that monitors the fierce reactions inside fusion test beds.

A third factor behind the stronger ties between universities and industry is the greater willingness by individual academics to chance their arm in commerce.

The simplest way for university staff to collaborate with industry is through an informal consultancy agreement, under which the researcher earns anything from £20 to £200 a day for his expertise. The cash is normally shared with the university authorities on roughly a 50:50 basis.

For example, Dr Mike Smith, a computer specialist from Reading University, works with a Woking company called Micro Control Systems on the design of hardware for monitoring industrial processes.

"Academics who do this kind of work are on the increase," comments Mr Geoff Burkitt, who has run the industrial services bureau at Brunel University for 16 years. "Universities recognise that a close contact with the outside world adds conviction to an academic's teaching and makes him a more worthwhile employee."

Manchester University has hit on a rather different mechanism for turning academic research into products that can be sold. The university has established a wholly owned subsidiary, Vuman, headed by Mr Norman MacLeod, a former banker.

Vuman's job is to listen to the ideas of academics for commercial products, arrange for the extra design and development that may be required and then attend to the crucial business of marketing the finished item.

In the past year, Vuman has sold goods worth some £750,000 including computers, robots, lasers and cut-price furniture.

Mirror flotation to follow Reuters'

By Alison Hogan

THE FLOTATION on the Stock Exchange of the Mirror Newspaper Group, originally scheduled for March, has been put back until after the planned mid-May flotation of Reuters, the communications group. This is to allow time to draw up detailed plans for a £50m printing works in Manchester.

Mr Clive Thornton, former chief executive of the Abbey National Building Society and chairman of the Mirror Group since December, expects to present his strategy at the beginning of April to Mirror's parent company, Reed International, and to financial institutions interested in backing the flotation.

Mr Thornton has suggested marketing the shares by giving them away as prizes in the Mirror's bingo competition and printing the prospectus for the flotation in all editions of Mirror newspapers. He wants all employees, including union chapels, to own shares.

He hopes to have the Mirror Group flotation in "the first half of the year," but says that it would be better to follow the Reuters flotation.

"We would have had to have gone well in advance of Reuters before the full details of its flotation had been decided. Some of our advisers are closely involved with Reuters and they would have been forced to disclose in our prospectus any information they knew about Reuters' plans," he said.

Mr Thornton said a number of financial institutions have agreed to support him if he can reach agreement with the unions. "They seem doubtful that I can achieve in three months what others have failed to achieve in 30 years, but our discussions have been in a most co-operative spirit and I am very optimistic," he said.

COMPANY NOTICES

CHANGE OF ADDRESS

THE TOYO TRUST AND BANKING CO LTD

Please be advised that with effect from today, our new address is:

5th Floor, Bucklersbury House,
83 Cannon Street, London EC4N 8AJ

Holders of bearer Certificates of Deposit and bills issued, drawn or accepted by the Bank are requested to present the same to the new address for payments of principal and interest.

CREDIT D'EQUIPEMENT DES PETITES ET DES MOYENNES ENTREPRISES

Corporation organized under French law (Société Anonyme d'Économie Mixte) governed by the articles 118 to 150 of the French law of July 24, 1966 relating to commercial Companies. Capital: French Francs 350,000,000. Head Office: 14, rue du Quatre Septembre, PARIS 2e. Commercial Registers PARIS B 320 252 489.

SECOND NOTICE TO HOLDERS OF BONDS 12¼% 1982-1990 OF ECU 1,000 EACH TO HOLDERS OF BONDS 12¼% 1982-1990 OF CAN $1,000 EACH

"LE DIRECTOIRE"

PROVINCE OF NEWFOUNDLAND

10% 1979/1994 US$50,000,000

Luxembourg, March 19, 1984

AKZO N.V.

NOTICE TO THE HOLDERS OF BEARER SHARES

Barclays Bank PLC, Securities Services Department, Midland Bank PLC.

Payment date is Tuesday, 24th April 1984.

LEUMI INTERNATIONAL INVESTMENTS NV

US$50,000,000 GUARANTEED FLOATING RATE NOTES 1986 EXTENDIBLE AT THE HOLDERS OPTION TO 1991

BANK LEUMI TRUST COMPANY OF NEW YORK, Principal Paying Agent

LEUMI INTERNATIONAL INVESTMENTS NV

US$20,000,000 GUARANTEED FLOATING RATE NOTES 1986

BANK LEUMI TRUST COMPANY OF NEW YORK, Principal Paying Agent

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EVE has outlived the others because of a policy of fair play and value for money.

ART GALLERIES

BROWSE & DARBY, 19 Cork St., W.1. 01-734 7984. JEFFERY CAMP, Recent Paintings.

McInerney wins £8m orders

McINERNEY PROPERTIES, Dublin, subsidiary and associated companies have won over £8m orders. The principal items were: 89 houses at Plymouth in joint venture with Plymouth City Council (£1.3m); 70 retirement flats at Middleton-on-Sea, Sussex for Meridian Housing Association (£1.3m) 53 retirement and starter houses at Ashford, Kent for Meridian Housing Association (£1m); and 48 houses in Lavant, Chichester in joint venture with Chichester District Council (£1m); all being built by McInerney Homes; 109 houses at Santry, Dublin for Dublin Corporation by Thomas McInerney and Co (£2.5m); Industrial premises at Doba, Qatar for Qatar State by Gulf Housing Co (£750,000).

Continued from Page

Money Market Bank Accounts (continued)

Dartington & Co Ltd				
Dartington, Totnes, Devon TQ9 8JE.			0803 862771	
Mny Mkt Acc*	9.0	9.30	Qtr	Call
Lombard North Central PLC				
17 Bruton St W1A 3DH.			01-409 3434	
Note Dep	8.75	8.94	Rate 14day	
M & G Group				
91-99 New London Rd, Chelmsford CM2 0BY.			0245 51651	
KinwtBnsnHICA*	9.1	9.5	Daily	Call
Midland Bank plc				
PO Box 2, Sheffield.			0742 20999. Ext 8223	
High Int Cheq*	9.00	9.3	Qtr	Call
Save & Prosper/Robert Fleming				
28 Western Road, Romford RM1 3LB.			0708 66998	
High Int Bk Acc*	8.38	8.75	Daily	Call
Tyndall & Co				
29-33 Princess Victoria St, Bristol BS8 4BX			0272 732241	
Demand Acc	8.45	8.72	Qtr	Call
Money Acc*	8.75	9.04	Qtr	CGQ/7
J. Henry Schroder Wagg & Co Ltd				
120 Cheapside, London EC2V 6DS.			01-382 6746	
Special Acc*	8.60	8.95	Mth	Call
Over £10,000*	8.85	9.22	Mth	Call

Notes—*Cheque book facility available. Interest is calculated on the basis of a nominal rate for a given period, but will not be comparable between funds of accounts if the intervals between interest credits differ. The annual percentage rate (APR) is comparable although it will only represent the amount actually earned in a year if interest rates are unchanged. Notice periods relate to penalty-free minima; in some cases earlier availability may be possible at an interest cost.

CONSTRUCTION CONTRACTS

£15m work for French Kier Construction

FRENCH KIER CONSTRUCTION has been awarded contracts to the value of £15.3m during February. These include a vehicle distribution depot at Sandwich, Kent for VAG (UK), a leisure centre and swimming pools in Felixstowe for Morgan Grenfell Finance, and major roof works to the North Barbican Podium for the City of London. Other clients include: Kent County Council, Sternway, Cambridge Consultants, British Rail (Southern) Region, DOE, and Greater London Council.

★

BALFOUR BEATTY CONSTRUCTION has been awarded two contracts. Valued at £1.13m, the first is for a DIY store and public house at Bradford Place, Walsall. Work has started with a 24-week construction programme. The client is N.F.C. Properties, Bedford. The second, valued at £575,000, is for the Maritime Housing Association, Liverpool, and covers Phase 1 construction of 20 houses in seven separate blocks. Work has started with a 38-week construction period. Balfour Beatty is a member of the BICC Group.

★

TAYLOR WOODROW CONSTRUCTION has started on a £2.3m contract to build an office block in New Bridge Street, EC4, for Taylor Woodrow Developments, scheduled for completion in July, 1985. The building will have four, five and seven-storey sections and will include refurbishment of a two-storey, Grade 2 listed building at 16 & 17 Bride Lane as part of the development. Piled foundations will support a reinforced concrete frame with reinforced concrete floors. External walls will be brick with asphalt-covered flat roofs and slate-covered pitched and mansard roofs. Carpeting, full air conditioning, and lifts, are included.

★

MOWLEM INTERNATIONAL has been awarded a £5m contract by the Government of Uganda for the reinstatement of the central streets of Kampala. The work will be carried out over two years and comprises about 30 km of road, some of which is dual carriageway. Drainage improvement, kerb realignment, pavement repairs and asphalt concrete overlay are included. A new section of road is to be constructed which will allow heavy vehicles to bypass the city centre.

★

WALTER LAWRENCE CONSTRUCTION, on behalf of the BNIA Brith Housing Society, is building sheltered accommodation at 175, Willesden Lane, W6, at a cost of £1.5m. Specifically designed for elderly people, the scheme will provide a total of 62 self-contained flatlets for either one or two persons and six larger units on the ground floor for wheelchair-bound residents. Each room is linked by a 24-hour a day alarm call system to the warden. Three communal lounge/common rooms are also provided together with two automatic lifts and a self-contained guest suite for visitors. All units will have fully fitted kitchens and specially designed bathrooms complete with safety aids.

★

ALFRED ROBINSON (BUILDERS AND CONTRACTORS), part of the now rebuilding division of London and Northern Group, has been awarded three contracts worth over £1.1m for work at Weston-Super-Mare. This comprises one contract for 46 modernisations and two contracts involving 42 elderly persons' flats. Border Engineering Contractors, a group member based at Whitehaven, will carry out junction improvements at Newby Bridge, Annan, in a £111,000 contract for the Scottish Development Agency. In Whitehaven, Border will carry out stabilisation of the retaining wall at South Beach for Copeland Borough Council for £147,000 and, in a smaller contract for North West Water Authority, will make improvements to the sewers at Monkwray Brow for £29,000. In a £540,000 contract, 22 grouped flatlets will be erected in a sheltered housing scheme at Botcherby for the City of Carlisle. at Wigton, Border will carry out a maintenance contract for Cumbria County Council at Nelson Thomlinson School for £96,000.

★

JOHN WILLMOTT COMMERCIAL DEVELOPMENTS is to carry out a £4.5m super store development in High Road, Wood Green, for the London Borough of Haringey. The proposed 57,000 sq ft retail store will have parking at surface and roof level. Safeway Food Stores will be leasing the accommodation. The scheme will link with the High Road through a retail mall north of the Odeon cinema.

★

Lancashire County Council, acting as agents for the Department of Transport, has accepted a tender worth about £3.5m from WIMPEY ASHPHALT for the resurfacing of part of the M6 motorway between junctions 32 and 33. The 35-week contract begins this month for completion by October 31. The Manchester office of Wimpey Construction UK has been awarded the building contract on a £750,000 retail warehouse project for the Royal Life Insurance Company. Texas Homecare will use the warehouse which is to be built on the Wardley Industrial Estate, Worsley, Manchester.

UK NEWS

Business loans scheme in doubt

By Tim Dickson

THE FUTURE of the loan guarantee scheme – one of the Government's most significant measures to help small companies – is hanging in the balance.

Controversial changes are now certain to be made if the scheme survives a tough review by the Department of Trade and Industry.

New conditions will be imposed to reduce the mounting level of losses and the 30 participating financial institutions will be forced to share more of the risks.

The loan guarantee scheme was introduced in mid-1981 on a three-year pilot basis. It is aimed at businessmen unable or unwilling to provide personal security or without a track record. Under the terms, borrowers pay a 3 per cent premium to the Government in return for an 80 per cent guarantee.

The participating banks actually lend the money and stand the remaining 20 per cent of the risk.

In terms of "take up" the scheme has been hailed as a great success with about 13,000 businesses borrowing more than £450m.

A major cause for concern, however, has been the high failure rate – an estimated one in three businesses using the scheme has apparently gone into liquidation. It was hoped that the premium income would offset claims by the banks, but the latest net deficit to the taxpayer is almost £34m.

Government ministers are now unanimous in regarding these losses as unacceptable, but they are divided about what action to take.

Mr David Trippier, the small business minister, is known to favour continuation, but with the banks in future taking 30 per cent of the risk. This, he feels, would encourage them to improve their appraisal and subsequent monitoring of companies seeking loan guarantee scheme finance.

Other sectors of the Government are keen to increase the premium paid by the borrower or to abandon the measure completely. But despite its deficiencies, ministers still seem unlikely to scrap the scheme. Such a move would expose the Government to accusations that its commitment to the business sector has weakened.

APPOINTMENTS

Chief executive at Blackwood Hodge

Mr A. C. Richards, chairman of BLACKWOOD HODGE, has assumed the responsibilities of chief executive following the retirement of Mr C. L. Ferguson as group managing director and from the board. The following have been appointed to the board: Mr R. A. Cameron, group executive for Europe since 1978, Mr B. Thompson, general manager of the group's major subsidiary, John Blackwood Hodge and Co since 1979, and Mr K. C. Scoble, who has joined the group as finance director.

★

Mr R. H. Birtwistle has been appointed managing director of COLAS PRODUCTS. Mr Birtwistle was strategic planning director of Shell UK Oil and succeeds Mr P. D. Skinner who has been appointed chairman of Shell Companies in New Zealand. Colas Products is a wholly owned subsidiary of Shell UK.

★

OTIS ELEVATOR has appointed Mr Peter Kerrell to the newly created position of director of marketing. He was Otis commercial manager.

★

Mr Carlo de Joncaire Narten has been appointed managing director of MORGAN GRENFELL ITALIA S.p.A.

★

Mr C. F. Lemming has been appointed to the board of HAWKER SIDDELEY DYNAMICS ENGINEERING as engineering director from February 27.

★

Mr John Taylor Williams has been appointed an executive director of the BAIRSTOW EVES group. He is chief executive and founder of Taylors Estate Agency group, the acquisition of which was approved by Bairstow Eves shareholders on March 16.

★

SUPRA AUTOMOTIVE has expanded its management team with the appointment of Mr Neville Cooper as sales director. He joins from Ring Automotive where he was acting UK sales manager.

★

The BRITISH DIRECT MARKETING ASSOCIATION has appointed Mr Colin F. Fricker as executive director from mid-April. He comes from the Association of British Launderers and Cleaners where he is director and general secretary.

★

W. S. ATKINS GROUP CONSULTANTS has appointed as technical directors Mr John E. Moore, head of the corporate development department, and Mr David G. Morgan, head of the urban and regional planning and landscape architecture department of the architectural practice, Atkins Sheppard Fidler and Associates.

★

CITIBANK has opened a branch in Bristol, managed by Mr Paul Gibbs, a vice-president. Since joining the Bank in 1976 he has held key positions in the Ivory Coast, Mauritius and Hong Kong.

★

Mr F. P. M. Johnston has been appointed a non-executive director of HOME COUNTIES NEWSPAPERS. He is chairman and chief executive of F. Johnston and Co, Edinburgh (newspaper publishers) and non-executive chairman of Dunn and Wilson Group (bookbinders). He is also a member of the Press Council.

INSURANCE

Ending of tax relief challenges salesmen

BY ERIC SHORT

FOR MORE than a century, investors have received tax relief on their life assurance premiums—a factor that gave life contracts a competitive edge over most other forms of savings.

The benefit of Life Assurance Premium Relief (LAPR) to the UK life assurance industry was, however, immeasurably greater than the actual value of the tax credit. For it provided an unsurpassed marketing aid for intermediaries selling or promoting life assurance.

In many cases salesmen had only to mention the tax relief element to complete the sale. The ability to get money back from the tax man counted far more than the actual benefits provided by life assurance.

The UK life assurance industry has to learn how to operate without LAPR since Mr Nigel Lawson, Chancellor of the Exchequer, terminated this tax concession in his Budget last week.

His announcement came as a shock, even though the Budget provisions had been leaked a fortnight before his statement. This gave salesmen enough time to persuade many of their clients to take out life assurance while they could still obtain the benefit of LAPR.

Life company executives have put on a brave face. They are not going to waste time trying to persuade Mr Lawson to change his mind. Instead, the executives are claiming that life assurance is still highly competitive, especially to the higher rate taxpayer. They say the ending of LAPR will challenge them to develop new products and new markets, while the Chancellor has not ended the public's need for life assurance.

The salesmen are not quite so confident. They feel their selling task has been made harder. They are already looking more closely at the other products available from life companies which still have a tax concession, in particular those pension contracts available to individual investors.

Pensions have far more generous tax concessions than life assurance. As far as the salesman is concerned, pension contributions qualify for tax relief at the investor's top rate, compared with LAPR which was only half the basic rate. But there are drawbacks.

The investor cannot touch his pension benefit until he reaches retirement, whereas life assurance savings contracts were available for terms of 10 years. The procedures for claiming back tax are more complicated than LAPR.

Above all, the majority of employees are in their employer's pension scheme, both in the public and private sectors and are not open to the blandishments of the life assurance salesmen for pensions.

This situation could change in a year or so. Mr Norman Fowler, Secretary of State for Social Services, is chairing a government inquiry into the subject of personalised portable pensions. The concept, headed by the Centre for Policy Studies, want employees to be able to opt out of their company pension schemes and make their own pension arrangements.

The evidence given the inquiry by the three life company associations—the Life Offices' Association, the Associated Scottish Life Offices and the Industrial Life Offices Association—was, on balance, in favour of retaining the company pension system with continued compulsory membership. They ask for a greater liberalisation of a third tier personal pensions element. This evidence was not accepted by all member life companies, since life companies stand to benefit from complete personalised pensions.

The Save and Prosper Group, a member of the LOA, is a leading supporter of the personal pensions concept and it publicly disassociated itself from the life associations' evidence.

While it is too late for marketing managers to submit evidence to an inquiry, they hope Mr Fowler will take notice of these changed feelings in reaching his decision, now expected in May or June. The supporters of personal pensions take comfort in the view that Mr Nigel Lawson is very keen to see personal pensions introduced.

Two members of the five-man inquiry are top life company executives—Mr Mark Weinberg, Chief Executive of Hambro Life Assurance and Mr Marshal Field, actuary and a deputy general manager of Phoenix Assurance. Many people in the pensions industry were perturbed at the composition of the inquiry, since it does not include anyone with full-time company pensions experience.

CONTRACTS AND TENDERS

YEMEN ARAB REPUBLIC

Yemen General Electricity Corporation

URBAN ELECTRIFICATION CONTRACT YEM 200

Invitation for pre-qualification

The Government of the Yemen Arab Republic has received a credit from the International Development Association in various currencies equivalent to about 19 million US dollars towards the cost of the Third Power Project that would be undertaken by the Yemen General Electricity Corporation (YGEC). Part of the proceeds of this credit along with funds provided by the Government of the Yemen Arab Republic and YGEC would be applied to eligible payments towards the cost for further development of the electricity distribution services in selected urban areas under the contract herein described.

General Description of Project

The urban electrification portion of the Third Power Project for the Yemen Arab Republic comprises continued expansion of the existing electricity distribution networks in three main towns, namely Sana'a, Hodeidah and Taiz.

Scope of Contract Works

It is intended to award a single contract for the supply and erection of the following equipment:

- 5 New outdoor 33/11 kV transformer substations
- 2 Extensions to existing outdoor 33/11 kV substations
- 1 Extension to existing metal-clad indoor 33 kV switchboard
- 42 Pole mounted and ground mounted distribution substations
- 32 Unit type distribution substations
- 70 km approx. of 33 kV and 11 kV wood pole overhead lines
- 20 km approx. of low voltage wood pole overhead lines
- 140 km approx. of lv, 11 kV and 33 kV underground cable
- 8,000 approx. service connections.
- Miscellaneous associated accessories.

Eligibility

This invitation for pre-qualification is open to all contractors from IBRD member countries, Switzerland and Taiwan.

Application for Pre-Qualification

Interested contractors are invited to apply for pre-qualification documents to the following address. The closing date for submission will be 30th April 1984. It is anticipated that the tender documents will be available for inspection and purchase by pre-qualified contractors by the end of May 1984.

Kennedy & Donkin, Pre-Qualification Ref. 1513, Westbrook Mills, Godalming, Surrey, England GU7 2AZ.

SOMALI DEMOCRATIC REPUBLIC
MOGAMBO IRRIGATION PROJECT

PROVISION OF AGRICULTURAL MANAGEMENT
APPLICATION FOR PREQUALIFICATION

The Mogambo Irrigation Project will develop irrigated agriculture over a net area of about 2,200 ha using water abstracted from the Juba River and forms part of a proposed ultimate development of some 6,500 ha net. The construction of these works is proceeding under the terms of agreements for financial aid negotiated between the Somali Democratic Republic, the Kuwait Fund for Arab Economic Development and the Kreditanstalt für Wiederaufbau.

Management of Project

The objective is to establish a commercially viable enterprise engaged in rice production together with a small pilot scheme for the production of cotton. Expatriate experts are required to form an integrated management team which shall be offered by a firm or company having applied experience in the commercial management of mechanised rice production under similar environmental conditions. The management team of expatriates who will have full executive powers shall comprise:

		Approximate duration of assignment in years
1)	Rice farm manager (Deputy General Manager)	3
2)	Field manager	3
3)	Chief accountant	2
4)	Plant production specialist	3
5)	Rice miller	2
6)	Workshops foreman/mechanic	3
7)	Short term specialist may be required from their head office	

In addition an expatriate irrigation engineer will be provided by the Mogambo Irrigation Project.
The team will be required to train Somali personnel who will eventually take over the management.

Prequalification of Tenderers

Tenderers who wish to be prequalified for the above Contract should submit their names and addresses to be received by the Consultant before 10th April, 1984, enclosing information about their previous commercial agricultural management experience, financial status and ability to provide the management team required, including short term specialists and head office back-up.

Consultant

The Consultant, to whom applications for prequalification should be sent, is:
SIR M. MACDONALD & PARTNERS LTD.
DEMETER HOUSE, STATION ROAD
CAMBRIDGE CB1 2RS
UNITED KINGDOM
who will acknowledge all applications.

Language

Submissions of original documents, or copies thereof, which are not in English, should be accompanied by a certified English translation.

Signed: THE GENERAL MANAGER
MOGAMBO IRRIGATION PROJECT
PO BOX 1205, MOGADISHU
SOMALI DEMOCRATIC REPUBLIC

LEGAL NOTICES

IN THE MATTER of R. J. WILKINSON (TOILETRIES) LIMITED AND IN THE MATTER OF THE COMPANIES ACT 1948

NOTICE IS HEREBY GIVEN that the creditors of the above-named Company, which is being voluntarily wound up, are required, on or before the 1st day of June, 1984, to send in their full Christian and surnames, their addresses and descriptions, full particulars of their debts or claims, and the names and addresses of their Solicitors (if any), to the undersigned PATRICK GRANVILLE WHITE of Booth, White & Co., 1 Wardrobe Place, Carter Lane, London EC4V 5AJ, a Joint Liquidator of the said Company, and, if so required by notice in writing from the said Liquidator, are, personally or by their Solicitors, to come in and prove their debts or claims at such time and place as shall be specified in such notice, or in default thereof they will be excluded from the benefit of any distribution made before such debts are proved.

Dated this 2nd day of March 1984.
PATRICK GRANVILLE WHITE
DAVID HUGH ANDERSON PEACOCK
Liquidators

THE COMPANIES ACTS 1948 TO 1976

ZEPHYR INTERNATIONAL PUBLICATIONS LIMITED

NOTICE IS HEREBY GIVEN, pursuant to section 293 of the Companies Act 1948, that a Meeting of the Creditors of the above-named Company will be held at 1 Wardrobe Place, Carter Lane, St. Paul's, London EC4V 5AJ on Thursday, the 29th day of March, 1984, at 12.00 o'clock in the afternoon, for the purposes mentioned in sections 294 and 295 of the said Act.
Dated this 6th day of March, 1984.
By Order of the Board
PETER J. FILBY, Director

IN THE MATTER OF THE COMPANIES ACTS 1948 TO 1976

PETER FILBY MAGAZINES LIMITED

NOTICE IS HEREBY GIVEN, pursuant to section 293 of the Companies Act 1948, that a Meeting of the Creditors of the above-named Company will be held at 1 Wardrobe Place, Carter Lane, St. Paul's, London EC4V 5AJ on Thursday, the 29th day of March 1984, at 11.00 o'clock in the forenoon, for the purposes mentioned in sections 294 and 295 of the said Act.
Dated this 6th day of March, 1984.
By Order of the Board
PETER J. FILBY, Director

PERSONAL

WANDSWORTH BOROUGH COUNCIL

REMEDIAL WORKS AT ROEHAMPTON

INVITATION FOR INTERNATIONAL BIDS NR 0014

Belo Horizonte, March 12, 1984.

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Floating Rate Notes Due 1988

In accordance with the provisions of the Fiscal Agency Agreement between Industrias Resistol, S.A. and Continental Illinois National Bank and Trust Company of Chicago, dated as of 8th September 1981, *notice is hereby given* that the Rate of Interest for the next six month Interest Period has been fixed at 11 ¾% p.a. and that the interest payable on the relevant Interest Payment Date, 19th September 1984, against Coupon No. 6 in respect of US $50,000 nominal amount of the Notes will be US $2,970.83 and in respect of US $5,000 nominal amount of the Notes will be US $297.08.

Agent Bank
Continental Illinois Limited

19th March, 1984

TECHNOLOGY

EDITED BY ALAN CANE

VENTURE CAPITAL FOR TECHNOLOGY

Golden bridge to 'fun'

BY DAVID FISHLOCK, SCIENCE EDITOR

"A LOT of people in the City don't meet people," says Dr Richard Hargreaves. "This business is all about building a relationship with both sides."

For Dr Hargreaves the two sides are the would-be entrepreneurs in technology and the financial institutions of the City.

He rejects the term "broker"—he claims to put more work into a venture than the term justifies and wants to retain a financial interest for his own company. He sees his operation "more as a bridge between the entrepreneurs and the City."

Where Hargreaves differs from most City people is that he finds technology and its creators "fun." It was a word he used often in the offices in London Wall of Baronsmead Associates, the venture capital agency he launched little more than a year ago, with the support of the Newmarket Company (1981) Limited, a Canonove venture.

For him, a "fun product" is the robotic system developed by Peter Davey in the Department of Engineering at Oxford University. It may well be the most intelligent factory robot system this side of the Atlantic. Baronsmead arranged the finance — nearly £800,000 — needed by Davey to put the robot system into production, first as an arc welding machine that can "see" what its doing through the smoke and flames.

There are four main investors in Meta Machines: the 1983-4 Baronsmead Expansion Scheme Fund, Newmarket (Venture Capital), Oxford University and a managed fund of N. M. Rothschild and Sons. The start-up finance will allow Davey to move his robots from Oxford's laboratories into a new factory near Abingdon this spring. As Hargreaves sees it, the fact that the university itself put in money was a particular coup.


Dr Hargreaves, bringing technology and investment together

"Ideally, we'd like a lot more Peter Daveys," says Hargreaves. Mr Davey, and his partner, Ed Hudson from Unimation, had been seeking £750,000—"not play money"—in the venture capital market. Their formidable technical credentials were not overcoming the traditional problems for any start-up—no trading, no money, no credibility. "We did an enormous amount of research on the machine and confirmed it as first-class."

Dr Hargreaves believes he can bring a difference perception to these problems in the case of technology based ventures. His own experience is rooted in technology, starting with Cambridge degrees in engineering, followed by a PhD in electrical materials science from Imperial College, London. "I speak the language," he says disarmingly.

Fresh from university, in the early 1970s, he worked for a while with the Science and Engineering Research Council, funding research proposals. It whetted his appetite for financing technology but was frustrating because SERC was "not too good at monitoring the results." So he moved to the City, with ICFC (now renamed 3I Investors), where he remained in venture capital—"not exclusively technology"—until he founded Baronsmead late in 1982.

His aim is simply to help people get started in business, he says. As he sees it, the climate for start-ups is improving "but it's still harder than it need be for even quite smart people to raise money."

Both sides present problems. The City is still too cautious—too few real risk-takers compared with the U.S., he says. The entrepreneur tends to be naive in such matters as management, money and marketing, too often offering "a solution in search of a problem."

A pre-requisite, Hargreaves finds, is that he must like as well as respect the entrepreneur.

Peter Davey is a man one can readily both like and respect. But Hargreaves is raising larger sums for other ventures. He raised £1m last autumn to launch Interface Network, a scheme to open a chain of shops specialising in microcomputers for the professional market. The chain—they are talking of 80 stores—will use high-technology systems itself, such as electronic mail, to enhance standards of service.

"It's all about the team being very smart," says Hargreaves. Even so, his entrepreneurs—James Minotto and Brian Allmey—were finding the City very hard going because of its fears of a disaster shake-out among makers of small computers.

Altogether, Baronsmead has done 18 deals for entrepreneurs, raising from £250,000 to £1.5m—in total, about £9.5m. It tends to raise more than the entrepreneur says he needs.

Electronics

Polytechnics plan £4m centre

TWO LONDON polytechnics are trying to raise £4m to set up a microelectronics centre for industry.

Middlesex Polytechnic and the Polytechnic of Central London would let companies use facilities both to design and produce electronic circuits. The cash would fund extra staff at the two institutions and the purchase of new hardware.

The polytechnics would also run short courses to teach the latest microelectronics techniques to engineers working for companies.

Dr John Butcher, head of the school of electronic and electrical engineering at Middlesex Polytechnic, says that the scheme could ease the critical shortage in industry of engineers who know about design and production techniques in electronics.

The two polytechnics could especially help small companies which have no facilities of their own to design or make chips. These companies could benefit even if they restrict their activities simply to using electronic hardware.

"The electronics industry is gradually accepting that companies are unable to use silicon devices properly unless they know how the hardware is made," says Dr Butcher.

The two polytechnics require £8m over five years to set up the centre. Some £4m of this would come from existing resources, leaving the rest to be raised from bodies such as the Department of Trade and Industry and large companies.

Dr Butcher plans also to seek sponsorship from banks and financial organisations in the City.

The centre would be based on existing facilities at the two London institutions. The Polytechnic of Central London owns hardware on which students design chips with the aid of computers.

And Middlesex Polytechnic has invested some £1.5m over several years on production equipment that turns out semiconductor devices. With Edinburgh University and Southampton University, the polytechnic is one of just three academic bodies in Britain that operate chip-making hardware comparable to that found in industry.

In other work at Middlesex Polytechnic, engineers hope to start a joint project with companies in what is called wafer-scale integration.

In conventional chip production, electronic circuitry is introduced to a semiconductor wafer perhaps 10 cm in diameter. The wafer is then cut up to produce hundreds of individual chips, some of which have to be thrown away because they are defective.

In wafer-scale integration circuitry is built into the wafer such that the individual chips connect up to each other. Engineers no longer need to cut up the wafer—it forms a complete system that can then be plugged into electronic equipment.

Some of the chips may be defective, as in the conventional manufacturing process. But the system is constructed so that it diagnoses for itself where the faults are.

Electrical signals therefore travel through the circuitry in such a way as to avoid the defective areas. The engineer using the system never needs to know which parts of the wafer are not working properly.

According to researchers at Middlesex Polytechnic, who have applied to the Government's Alvey information-technology programme for cash to fund their work, wafer-scale integration could lead in certain applications to cheaper electronic systems.

PETER MARSH

SECOND GENERATION TURBOCHARGERS

New boost for turbos

BY JOHN KERR IN SAN FRANCISCO


Turbo cars may benefit from next generation design.

DRIVERS of turbo cars are invariably enthusiastic about the performance of the machines. But they are increasingly critical of turbo "lag"—the perceptible delay between standing on the accelerator and feeling the kick that indicates boost from the turbocharger.

So engineers are developing second-generation turbos that give rapid response with strong boost all the way from engine idle to high revolutions per minute. One promising solution is variable-geometry turbocharging.

Turbocharging—using engine exhaust energy to spin a tiny turbine whose compressor wheel crams more air into the engine intake—has long been a highly effective means of boosting torque and power in trucks and in marine and industrial diesels. That is because turbos work best with engines that run within narrow speed and load ranges; in trucks, where acceleration is limited, turbo lag is unimportant.

But in power generation sets, lag can cause AC frequency jump from the standard 50 Hz during sudden electrical load changes. In cars, a large turbo matched to low engine speeds gives too much boost at high engine revs—and its inertia produces considerable lag. A light, nimble turbo engineered for high engine speeds will spin up quickly when needed, cutting lag, but will be breathless at low engine revs.

Essentially a steady-state device, the turbocharger is a poor match for the wide speed range of a car engine. Even in trucks, it is less effective at lower revs/min as the turbo rotor slows down and runs out of breath. What is needed for all applications is a rotor that maintains a high rotational speed, ready to kick in forcefully and instantly even at low engine speeds.

Variable-geometry turbocharging does just that. One key arrangement features a ring of about 20 pivoting aerofoil-shaped vanes around the periphery of the turbo's turbine wheel. At low engine speeds, they bunch up like closed venetian blinds to present a series of tiny "throats" that accelerate the exhaust gas flow and make the turbo rotate faster. At high engine revs, swiveling the vanes back opens the "throats," backing off exhaust flow to prevent overboost.

The technique is borrowed from water turbine control in hydroelectric power stations.

Control can be linked to inlet manifold pressure and/or engine speed. In the future, microprocessor control is likely.

A U.S. company, Aerodyne Dallas of Texas, is doing most to promote V-G turbos. It installed its prototype V-G unit in a Mercedes 300SD diesel car and claims to have cut lag—the time to reach 1.6 bar boost pressure—from 3.2 to 1.1 seconds.

And matching its unit to the same mass flow as a conventional Garrett AiResearch turbo at 6,000 revs/min engine speed, Aerodyne reports 15 hp more—up to 160 hp—from a Ford Thunderbird Turbo Coupe with much improved driveability thanks to less lag.

There are other benefits. Holset Engineering of Huddersfield, a major manufacturer of truck turbos, is also well down the development track with an undisclosed nozzle-vane turbo and is expected to unveil a pre-production prototype next year.

The University of Bath confirms these levels of improvement in its independent tests backed by the Department of Trade and Industry.

In the U.S., the U.S. Army's R and D wing has sponsored an advanced turbo programme on diesel tank engines. Fitted with a turbo featuring variable geometry on the compressor as well as the turbine side, a 750 hp 12-cylinder air-cooled diesel doubled peak torque ratings.

V-G turbos are challenged by a myriad alternative innovations: ceramic rotors whose minimal inertia permits rapid spin-up; three-wheel hydraulic and electric turbos; hyperbar systems that resemble the afterburner in an aero engine; compressor bypass—these are just a few.

Design

Chip layout by computer

A COMPUTER aided engineering and design software system has been developed by Mentor Graphics in Beaverton, Oregon. It is the company's first entry into the full-custom integrated circuit design market.

Mentor says that the Chipgraph editor speeds up and simplifies the creation of very large-scale integrated circuits. Each cell stored in the computer represents a particular logic component and has data on the technology rules for interconnection to other cells and other relevant data. More details from the company in the U.S. on (503) 620 9817.

Telecom

Computer protocols

BT Merlin, British Telecom's office automation company, has adopted a communications protocol for microcomputers devised by a U.S. company, Microcom Inc.

It believes the protocol, which Merlin will market under the name T-Link, stands a good chance of becoming the industry standard for communication between personal computers.

Based on the model for open systems interconnection, T-Link is supported by Merlin, IBM, ICL and Apple Computers among others, Merlin says. More on 0344 56661.

THE MANAGEMENT PAGE

EDITED BY CHRISTOPHER LORENZ

Product development

Philips looks to design for a boost

BY CHRISTOPHER LORENZ

COR VAN DER KLUGT, one of the top three executives of Philips, has spent a lot of time recently puzzling about why consumers flock to buy shoes and shirts with "designer" labels on them.

No, the somewhat calvinistic Dutch electronics group is not planing to compete with Gucci or Pierre Cardin. But, as the head of Philips' troubled consumer electronics activities, van der Klugt is obsessed with the need to match the skill of his all-conquering Japanese competitors in creating demand for their new products—a skill which has much in common with the fashion business. He sees industrial designers playing a crucial role in ,as he puts it, "second-guessing" likely consumer preferences: not only for colours, shapes and styles, but also for entire products.

With the advent of "world products," shorter product life cycles, and all today's other competitive pressures, van der Klugt says designers can no longer just be called in at the eleventh hour to add an attractive external appearance to objects which teams of engineers and marketing men have already developed. Instead, he argues, designers "should have a voice in the product's birth, as a full member of the team."

That's the way it's starting to be at Philips. No mere theory in the executive suite, van der Klugt's new dedication to design is spreading to all the company's 12 product divisions.

Two levels below van der Klugt, Francois Dierckx, head of hifi within the audio division, eagerly draws diagrams of the growing saturation and technological maturity of several product markets to explain why he has radically upgraded the role of industrial design since he took over in 1981. In hifi, "as much as 70 per cent of the product development process is now design," he claims.

Jan Tollenaar, his opposite number in the personal care section of the small domestic appliances division, goes even further, talking in terms of industrial designers acting as "product managers"—co-ordinators of the development team.

In several parts of Tollenaar's empire industrial designers have recently begun to initiate major product changes, involving costly investments.

In the lighting division, too, industrial designers have begun to initiate or co-ordinate the development of some highly successful new products.

Even on some of the company's "heavier" product lines, where the scope for industrial design is far less obvious, it is beginning to be treated by engineers and commerial staff as more than just cosmetics. Though the first initiative taken with these divisions by Philip's new design chief, Robert Blaich, was largely styling—a corporate image harmonisation programme for all "professional equipment"—he recently helped persuade three of the units, including data systems and telecommunications, to take a more far-reaching step and begin co-operating on the development of TV monitors.

Slow-footed leviathan

The upgrading of design at Philips, into what van der Klugt calls "a strategic tool, as well as an operational one," forms part of the company's widely publicised attempt to transform itself from a slow-footed, technology-based leviathan into an altogether sprightlier beast which can not only respond quickly to market wants but can create them.

"The market itself never demands anything in consumer products," van der Klugt argues. "You have to come up with concepts which it will accept." This requires the commercial side of the organisation, not only the engineers, to look beyond the end of their noses rather than to rely just on high-class technology to look after tomorrow's profits—which is what Philips did, to its cost, with its excessively expensive V2000 video recorder. Van der Klugt considers himself "fortunate" if he finds commercial people in his company's various product divisions "who look more than one year ahead." Hence his emphasis on the value of the strategic role which designers can play.

The gradual transformation of industrial design which is now under way at Philips, from a styling tool to something far more substantial, had begun before late 1980, when Bob Blaich was headhunted from his consultancy in the United States; for many years before that he had been design director of one of America's most successful furniture companies, Herman Miller.

But, reporting direct to van der Klugt, Blaich has given valuable impetus to the process and especially to the growing readiness of engineers and marketing staff right down the organisation to involve his designers as equal members in their teamwork from the very start of the product development process.

Though Blaich's predecessor as head of what Philips calls its "Concern Industrial Design Centre" had also reported directly to the management board—giving him a higher status than the top designers in most companies—many of his staff lacked authority in the various product divisions. This was partly because he was heavily identified with the styling side of design, but also because of the way the centre, with its staff of 200, was organised.

One of Blaich's first moves was to give it a more devolved and managerial structure, in which a designer's seniority was determined not only by his technical expertise and experience, but also by his forte as a manager. Six "design managers" were created, each assigned to be responsible for the centre's work for particular product divisions, and with several "contact designers" reporting to them. They were urged to integrate themselves as closely as possible into the divisions. Blaich has also recruited considerable new blood into the centre.

The new structure has encouraged divisional engineers and commercial executives to look on designers as like-minded and useful generalists, rather than as specialised and rather peculiar technicians. In quite a number of divisions, it has eased the designers' way onto product programmes at a very early stage, and even in a couple of cases onto various general strategy committees. It has also stimulated communication between overlapping divisions.

This integration into divisional decision-making is no easy process. "A lot of it relies on personal chemistry between the people concerned," says Blaich. He admits that some development engineers, in particular, have resisted the designers' growing muscle, and his deputy, Frans van der Put, confirms that the reaction of the divisions "varies enormously."

The senior designer for personal care products, for example, had been integrated into the division's interdisciplinary product team even before Blaich's arrival. But in the audio division Francois Dierckx has felt it necessary to get several of Blaich's designers to act as a direct resource to him rather than form part of the divisional product team beneath him; designers do take a full part in lower-level "working teams" for individual products, however.

"Strong design is only possible if you insulate it from the development engineers," claims Dierckx.

But Dierckx's reason for wanting direct contact with Blaich's designers also has a more positive side. It helps "bring together marketing and development," he says, supporting the frequent demand of industrial designers that they should be given an especially valuable role as catalysts between other managerial functions. Mike Jankowski, a Scotsman who works for Blaich, says "marketing and engineering people mention things without realising their potential. The design environment is a cacophony of noise."

Giving birth to a new shaver

THE NEW Philishave (on the left in the illustration) is a triumph for Peter Nagelkerke, the moustachioed young Dutchman who was design manager on its five-year development programme, which ended last year with the shaver's launch in the U.S. and on the Continent (it arrives in British shops in May). In almost every way it represents a considerable advance on its much larger and heavier 1980 predecessor (right).

The personal care division may have to follow many other parts of Philips in speeding up its innovation cycle if Japanese competitors weigh in with a faster flow of products. But at present it is sticking to its established pattern of launching a new shaver every three years, after a four-to-five year development cycle.

So in 1978, when the company had almost completed the development of the 1980 model, its first shaver with twin "retractor" blades (as opposed to single blades), Nagelkerke was already beginning work with an interdisciplinary team of engineers and marketing men on its successor.

The marketing people had wanted the 1980 product to look different from its predecessors in order to communicate to consumers the technological innovation it contained. So the designers provided a streamlined shape, with the blades set at nearly 90 degrees to the stem of the shaver as in previous models, but emerging more directly out of it. To power the extra blades, the 25-year-old motor design had to be "stretched" and enlarged. The result was a heavy shaver which was awkward to use. But a portion of the market found it extremely attractive, and it sold well. It still does.

The trouble was that, as consumer tests showed only too clearly, the rest of the market disliked it intensely. Which made the divisional team nervous, since Philips has always aimed to give its shavers a very general appeal. This had to be restored if it was to avoid dangerous competitive attacks—not only from its arch-rivals Braun and Remington, but also from the Japanese, who were already going for much smaller shavers, on the usual Japanese principle of precision miniaturisation.

All of which strengthened Nagelkerke's hand. Unhappy with the ergonomics of the 1980 shaver, he also wanted to get back to—or even below—the size of the previous line of machines. Given the need for extra power and extra transmissions for each of the three twin blades, this was a pretty tall order. Leaving extra room for all sorts of future electronic features, including automatic voltage selection, it meant the engineers would have to develop a new type of motor which was less than half the size of the one in the 1980 model.

The development engineers were understandably not amused, but with his marketing colleagues behind him, Nagelkerke used sketches and models to win a series of arguments—and to justify the expenditure of millions of dollars on the new motor line and other improvements, at a time when Philips' group profits were in a nosedive. At little more than half the weight of its predecessor, about a fifth shorter, and with its heads at a more comfortable angle, the new machine is much more convenient to hold and to use.

Nagelkerke also won a battle for the use of better quality plastic for the shaver's casing. Thermosetting, used for 25 years, provides problems in production, breaking easily and coming out of its mould with rough edges. Thermoplast, which Nagelkerke advocated, gives a much more precise surface and is easier to make in varied thicknesses.

Again he had to fight conservatism, in this case from production engineers in Philip's North Holland shaver plant. His weapon in a more general struggle to improve the quality of manufacture included neatly crafted chopsticks, which he took into the factory to illustrate Japanese dedication to the meticulous treatment of high-quality materials. The effect? "It was rather a fight—almost as tough as over the motor. The factory people weren't used to things like that."

Business courses

Law of buying and selling, London. April 17-19. Fee: £414/£437 after April 3. Details from JK Van Wyck, Seminar Division, Crown Eagle Communications, 2 Bloomsbury Place, London WC1A 2QA. Tel: 01-636 0617. Telex 896827.

European banking conference, Milan. April 11-12. Fee: £400. Details from the Financial Times Conference Organisation, Minster House, Arthur Street, London EC4R 9AX. Tel: 01-621 1355. Telex: 27347 FTCONF G.

What is the repertory grid? Brunel. April 12-13. Fee: £250. Details from The Secretary, Management Programme, Brunel University, Uxbridge, Middx UB8 3PH. Tel: 0895-56461.

Computer integrated manufacturing and the effects on production and inventory control, Coventry, May 10. Fee: Members £92; non-members £112.70; 3rd and subsequent delegates from one company £57.50. Details from Seminar Secretary, BPICS, 3 The Square, Sawbridgeworth, Herts. Tel: 0279 723554.

Principles of professional salesmanship, Brussels. May 14-18. Fee: Non-members BFr 58,000; members (AMA/I) BFr 53,000. Details from Management Centre Europe, Avenue des Arts 4, B-1040, Brussels. Tel: 02 219 03 90. Telex: 21 917.

Productivity techniques — the state of the art, London. May 24-25. Fee: BIM individual members and collective subscribers £195.50; non-members £218.50. Details from Conference Dept, BIM, Management House, Cottingham Road, Corby, Northants NN17 1TT. Tel: 05363-4222.

Financial management of research and development, Buckingham. May 15-16. Fee: £220 plus VAT; £155 plus VAT for the second and subsequent nominations from the same organisation. Details from Brian Twiss, IMCB, The International Management Centre from Buckingham, Northern Office 198/200 Keighley Road, Bradford BD9 4JQ. Tel: 0274-499821. Telex 51317.

Marketing management course, Brussels. May 21-25. Fee: Non-members BFr 60,000; members (AMA/I) BFr 54,000. Details from Management Centre Europe, Avenue des Arts 4, B-1040, Brussels. Tel: 02 219 03 90. Telex: 21 917.

Marketing for profit — new approaches, London. May 16. Fee: Members £126.50; non-members £143.75. Details from Joanna Dean, Institute of Marketing, Moor Hall, Cookham, Maidenhead, Berks SL6 9QH. Tel: 06285-24922.

THE ARTS

Architecture

Colin Amery

In two dimensions

It is an exciting event when a large part of the top floor of the Centre Pompidou in Paris is given over to the subject of architecture. The exhibition, *Images et Imaginaires D'Architecture* (until May 28), must be one of the largest displays of images of architecture seen recently in Europe. It is not an exhibition of drawings exclusively by architects but a show of designs, photographs, graphic art, stage and cinema designs—all *genres* inspired by architecture.

Of course there are a great many architects' drawings: drawings that have had an incredible influence on the look of the 20th-century city and on the way that each generation looks at the artefacts of the builder. The time-scale of the exhibition is a long one. The whole of the 19th and 20th century comes under examination. It is a review of the architectural drawings on the surface but underneath it is a *study of architecture as a reflection of society.*

Because architecture is such a difficult subject to exhibit successfully there is an increasing interest in *The Drawing* as the only easily portable evidence to display for public consumption. I am often tempted to wonder whether the rising interest in architectural drawings can be paralleled by the declining public interest in recent architecture as seen in three dimensions.

The Pompidou Centre offers an interesting example of contemporary architectural creation as a background to some of the finest drawn examples of architectural achievement of the past two centuries. I personally loathe the building as a public place of enlightenment and culture, although I can see the versatility of the technology. I find it less appealing than the Eiffel Tower as an example of clever engineering. The centre is dirty and confusing and the tiresome circus outside has certainly lost its charm. But despite the drawbacks of the architecture the centre provides a regular series of good exhibitions, that in themselves indicate that the style of the Pompidou was just another passing fashion. The new Lloyds of London is by the same architect and when it is finished it will be intriguing to see whether the technological language of the early 1960s has advanced significantly.

The current Pompidou show has been conceived to demonstrate the great richness of architectural imagery created in Europe in the last 200 years. In the tradition of the mixed media, multi-disciplinary events that the Pompidou has perfected, this exhibition make no very strong statements. Probably the most definitive is the decision to show the works in a *series of small rooms within a* generally Post Modern design. It is amusing to enter the hideous portals of the centre through a mock classical entrance attached to the metalwork. The exhibition design doesn't win in the interior itself where the batteries of pipes, tubes and wires always appear to be looking over your shoulder.

The organiser of the show, Jean Dethier, sees the works on the walls as representing the difference between the built and *the drawn reality.* By stimulating the public with as catholic a range of images and media as possible he hopes to engage them in the architectural debate. He feels as do many of us, that the public has been traumatised by modern architecture—particularly by the arrogance and elitism of the professionals—and that there must be a way of establishing a new visual imagery as a way towards a new architecture.

It is a brave show and a serious attempt to crack a particularly hard nut. No one in England has dared to put on an exhibition that has such challenging content or such thought provoking material. It is probably too large a selection of images from 15 countries in Europe: from Schinkel in the early 19th century to the fantasies of Fellini in the late sixties there are too many things to say. Too many lines have been drawn and too few of them connect or lead anywhere.

There are two ways of looking at it all—sheer delight in the number and range of beautiful drawings and the infinite number of ways of looking at a work of architecture, or a solemn progress through the icons of the architectural movements of the last two centuries. It is a lesson in the seductive nature of the drawing as a purveyor of ideas, it is also a warning that there is a third dimension to it all, that we ignore at our peril. Not to mention the fourth dimension—those creatures called Man—who have to live, work and have their being in the creations of these architects and artists.

It is a rich experience and worthwhile on the aesthetic and social/historical levels. What is highly debatable is whether it succeeds in building any bridges between the two to increase our understanding.

Colin Amery visits an ambitious show in Paris

One for the Road/Lyric Studio

Michael Coveney

Harold Pinter's new play at the Lyric Studio in Hammersmith puts a spot of welcome oomph into the lunchtime theatre scene. It is a violent, disturbing, enthralling short play, beautifully directed by the author and boasting a performance of quite chilling ferocity by Alan Bates.

Pinter himself has acknowledged that it becomes increasingly impossible not to contemplate the political ugliness of the world. Bates as Nicholas is discovered in a strangely spartan office. He is some sort of police chief who defines his job as keeping the world clean for God. He entertains a tattered, bruised and bloody prisoner, Victor. He refers to the wishes of the man who runs this country and to the fact that "some of his boys" have violated Victor's house and property. Upstairs, some more of the boys are violating his wife.

The wife, Gila (Jenny Qualye) *appears* in the *third of the four* short scenes. She does not know how many times she has been raped. Her father, now dead, was revered by Nicholas. *Her father, he says, was a man* of honour who did not think.

In characteristically elliptical style, Pinter marks out the distance between people. For the first time in a play of his, however, the State, the regime or *whatever, is a factor. Bates* quoffs whisky, treating himself to "one more for the road," while elucidating what appears to be the one solid charge against the couple: their seven-year-old son has kicked and *spat upon* the *soldiers.*

In the third scene, the boy appears. Bates engages him in mild talk about aeroplanes. In the last scene, Victor is about to be released. He asks after his son. "Oh, don't worry about him," says Bates. "He was a little prick."

Tim Bickerton's honeycomb-coloured office, with its high barred window and ostentatiously spacious leather-topped desk is curiously suggestive of a banana republic. But the play is not specific in that sense. It is specific, and powerful, in another, which is: look, these terrible things are happening every day all over the world.

There are some classic Pinteresque interrogatory passages. Victor, played with noble, passive incredulity by Roger Lloyd Pack, is told by Bates that everyone around here has fallen in love with his wife. He closes in and twists the knife: "Who would you prefer to be, you or me? I'd go for me if I were you."

To make up a 45-minute programme, *One for the Road* is preceded by Alan Bates and Roger Lloyd Pack in *Victoria Station* which was first seen at the National with *A Kind of Alaska*. It is a very funny sketch for a London cab driver and his radio controller. Bates is called up while *cruising* near Crystal Palace. His condition is distracted, aphasiac. He has fallen in love with a girl who, he says, is on the back seat. Pinter's relish for proper names and London slang is comically unbridled. But shifts of power and domination are as crucial to the comedy as, in the new piece, they are to a tragedy.

New Sadler's Wells Opera's G & S festival in London

This summer NSWO presents its first ever Gilbert and Sullivan Festival at Sadler's Wells Theatre from June 4-July 21 featuring a new prodnction of *HMS Pinafore.*

The festival will also feature the company'e production of *The Mikado,* first seen last season, and *The Gondoliers,*

The summer will be enother "first" for NSWO when it tours *The Mikado* and *HMS Pinafore* to the Theetre Royal Bath, for a two-week season from July 24 to Angust 4.

New Sadler's Wells Opera is *sponsored* by National Westminster Bank.

Scarfe's debut as opera designer

Cartoonist Gerald Scarfe is to make his debut as an opera designer, English National Opera has announced. Scarfe wil design a new production of Offenbach's *Orpheus in the Underworld* which ENO will present at the London coliseum on October 24.

It is one of nine new productions and 13 revivals announced for ENO's 1984-85 season, which opens on August 28. In addition, the company will be re*ducing seat prices* to levels at the start of the 1983-84 season with a top price of £15.50 down to £3.50.

Shelagh McLeod in "The Hitchhiker"

Leonard Burt

Young Writers/Royal Court

Martin Hoyle

Keep it under your Phrygian cap, but the Young Writers Festival at the Court's Upstairs theatre is quietly engineering a counter-revolution. The plays making up the current double bill are articulate, painstaking and might find their true niche on radio. Moreover one displays an ambivalent attitude to popular concepts of progress that recalls an Ealing comedy in gentle rather than uproarious mood.

Jane Anning's *Unity* is a frigid, alcoholic drug addict of 29, terrified of sex following advances from her brutal father. She keeps her long-suffering older man-friend at arm's length, absently calling him "Daddy", and creates an imaginary child companion/confidant.

Almost a documentary case-history, the play is virtually a monologue for the girl with occasional support from lover and doctor. Telling her own often patently deluded story adds a layer of ambiguity slightly beyond Sylvestra le Touzel's as yet limited palette of emotional colours, and ultimately the piece *strikes* one as long and repetitious. It would work well on radio, with reality and hallucination more sharply differentiated. Somewhat monotone, but powerful and well-wrought for a 17-year-old author.

Eileen Dillon's *The Hitchhiker* left me uneasy despite assured performances and Tim Bickerton's evocative set, combining landscape and farmhouse kitchen. The gentle lesson in love dealt out by rural Ireland to a visiting London girl of conventionally progressive views on such themes as abortion struck me as faintly cosy, and too easily discounted the agonising that has prompted countless Irishwomen, apart from their men, to cross border or sea in search of freedom of moral choice. But Irishness is more fashionable—or just more identifiable—than Englishness. If the outsider had been a streetwise black girl from an urban environment and the affectionate hosts Devonshire villagers, would the reactionaries have come off quite so sympathetically? At the Royal Court? *Upstairs?*

The Hungry Ghosts/Old Red Lion

Antony Thorncroft

The action of C. P. Lee's short play takes place in an upstairs room of a Manchester pub. No great design skill is needed to *present it in* an upstairs room at the Old Red Lion, hard by the Angel in London. But then no great directing talent is needed either *in* thia very typical *fringe production* in which plot and drama only intrude in the last two minutes of the action. Up until then it is the usual thing—the writer showing off his skill at amusing or pertinent one-liners about contemporary society and actors capeble of assuming the mantle of the young working class.

By these standards *The Hungry Ghosts* is not dissapointing. Basically three teenage girls make comment about their life in 1966 in the first act and in the second we see how 11 *years have changed* their attitudes. Predictebly the passive innocent bas transformed into the aggressive success, while remaining stupid—she confuses Mahler with Bob Marley.

For much of the time it is like an old music hall sketch of Gert and Daisy kind and although I do not think that just mentioning Cathy McGowen is worth a guffaw C. P. Lee takes an affectionate and humorous view of his two periods. Kathy Burke as the upwardly mobile Pauline has the best opportunities and takes them but Michele Winstanley, Tilly Vosburgh and Mark Aspinall (in the two thankless male roles) all give performances rather better than the play deserves, especially in the second act when they are closer to their natural ages.

The Hungry Ghosts is a trilogy and C. P. Lee, with generous self-interest, is offering you the chance to contribute to the final scene—the girls now. On this showing he will craft yonr contemporary jokes and insights into a light but not unappeeling 30 minutes.

Wee also have Sound-Houses

Dominic Gill reports on a festival week of electronic music

Wee also have Sound-Houses, wher wee practise and demonstrate all Sounds, and their Generation. Wee have Harmonies which you have not, of Quarter-Sounds, and lesser slides of Sounds. Diverse Instruments of Musick likewise to you unknowne, some sweeter then any you have . . . Wee represent Small Sounds as Great and Deepe; likewise Great Sounds, Extenuate and Sharp; Wee make diverse Tremblings and Warblings of Sounds, which in their Originall are Entire. Wee represent and imitate all Articulate Sounds and Letters, and the Voices and Notes of Beasts and Birds. Wee have certaine Helps, which sett to the Eare doe further Hearing greatly. Wee also have diverse Strange and Artificiall Eccho's, reflecting the Voice many times, as if it were Tossing it; And some that give back the Voice Lowder than it came, some Shriller, and some Deeper . . . Wee have also meanes to convey Sounds in Trunks and Pipes, in strange Lines, and Distances.

Thus Sir Francis Bacon, in his *New Atlantis* of 1624, describing with uncanny prescience not merely the emancipation of music three centuries later from the traditional rules of consonance and tonality, but also in startlingly accurate detail the equipment and work of an electro-acoustic music studio of the mid-20th century.

What Bacon did not forsee, since he missed recording from his remarkable list, was that virtually all of the most significant developments in the early part of the electro-musical age—the tape-recorder, stereo recording, the noise-reduction circuit, the silicon chip and now digital computer recording and the laser disc—have been for the benefit of the listener. Music is today reproduced with greater fidelity, more cheaply, on ever lighter and more easily portable equipment and is more widely available, than ever before in its history. The composers who create the music, on the other hand, with a few notable exceptions, have so far tended to ignore the electronic revolution, or acknowledge it only marginally.

That's not really surprising. Electronic techniques have hardly yet moved out of their infancy: traditional instruments, whose modern form is the result of centuries of adaptation and evolution, are not just more familiar, but still offer the composer a far more sophisticated and expressive medium for his musical ideas, and above all are far more easily manipulated in performance, than a box of circuits. Why forsake the thrillingly rich, subtle and intimate sonorities of the violin or oboe for the sine-tone whine of the synthesiser?

It was a question to which many composers could find no answer. Since the electronic revolution did not immediately offer any satisfactory new live performing instruments, composers who wished to work wholly within the new medium were confined to creating their sounds in the studio and recording them on tape. In 30 years, that genre has produced some fascinating experiments, but no more than half a dozen truly original and striking compositions — and audiences are agreed that even those suffer from the peculiar disadvantage, compared with live performances, of seeming somehow frozen, immutable, delivered without human intervention. Listening in the dark to sounds from 20 loudspeakers can be for a while, if the sounds are good, an exciting experience; but no one I have met pretends that it can compare to the experience of listening, even on record, to live performers shaping with their own skill and musical instinct a living work of art.

For this reason, some of the most successful—and promising—experiments in the field have investigated ways of combining electronics with other media or with live performance. A New Macnaghten concert, for example, earlier this month at St John's, Smith Square, mixed tape-music with visuals—an audio-visual collaboration between two composers, Alejandro Vinao and Richard Attree, and the visual artist Horacio Monteverde, whose slide-show, synchronised with the music by computer, was cast by 16 projectors on three large screens. If the experiment is to be developed further, I should imagine it must turn to film or video, faster and less cumbersome than slides. But it was, technically, a brilliant tour de force; and Vinao's *Hendrix Haze* is, I believe, even visually unadorned, one of the most accomplished tape-pieces to be made anywhere in the past decade.

It was significant that last week's sixth annual Festival of Electro-Acoustic Music, devised and presented by Simon Emmerson in the New Hall of The City University, offered a marginally greater number of works including live performers than tape-works pure and simple. Some of the most elementary "live" techniques, indeed, have produced some of the most effective and rewarding results. Amplification is a commonplace device; but imaginatively used, with multi-channel mixing to highlight and direct the movement of sounds around an auditorium, it can create an antiphonal dimension more vivid and more complex than could ever be achieved by traditional means. (Perhaps the most sophisticated recent example of amplified sound-projection is Stockhausen's opera *Donnerstag*, whose massive antiphonies, through more than 100 loudspeakers above and encircling the audience, are an integral and very exciting part of the score.)

The live works of the Festival's three programmes also seemed notably stronger, more concise, more confident of their desired effect: of all the tape-pieces, only *Dangerous Liasons* by the young composer Simon Waters seemed to know its own limits, and especially its natural duration—polished and well as they are, neither Luciano Berio's *Chants parallèles* nor Bernard Parmegiani's *De Natura Sonorum* would lose anything by being pruned to about one-third of their present length. Berio's *A-Ronne*, by contrast, given by the excellent amplified vocal ensemble Vocem in a staged version of the original score for five radio actors, is a dramatic essay in the composer's deftest and most colourful manner, without a redundant or self-conscious gesture.

Bass Drum by Alan Belk, also sung by Vocem, accompanied by percussion and by their own vocal "percussion" on tape, is an exuberant soft-rock romp (shades of Laurie Anderson), quick, stylish and great fun. Javier Alvarez's *Temazcal* for amplified maracas and four-track tape was another serious virtuoso fun-piece, splendidly played by Luis Toro, a genuine electric partnership.

The latest in computer technology offers the potential at least of still greater economy and flexibility. The basic blueprint for the sound distribution and modulation of Morton Subotnick's *The Wild Beasts* for piano, trombone and "ghost electronics" was contained in a ROM-chip only a few centimetres square plugged into a control box. It was a fairly primitive system, which gave fairly primitive results — the program runs in real time, uninterruptably, like a relentless mechanical conductor. The next step, however, is to permit live and "intelligent" interaction between performer and computer.

Boulez's *Repons* for instrumental ensemble and computer synthesisers, developed at IRCAM in Paris, approached this goal from another angle two years ago; and it is, in various guises, essentially the goal to which most present-day electro-acoustic musical research aspires. The day may dawn sooner than we *think* when Bacon's extraordinary vision is no longer confined to experimental Sound-Houses, but takes its place naturally in our concert halls.

The Way of the World/Greenwich

B. A. Young

Giles Havergal's production of Congreve's great comedy is trimmed to a playing time of two and three-quarter honrs. This deprives us of a number of pleasant lines, but also sharpens up the plot mechanism, which in the first half of the evening can sometimes be clogged by the wit.

When the lights go up, there is a table, centre, covered with a litter of legal documents and surrounded by three young men dressed in formal present-day clothes and black *bombazine gowns. Principally* they are employed as scene-shifters, but sometimes take an active part in the business; for example, when Mirabell and Millamant bave agreed to exchange a marriage contract, one of them produces the document and hands it over. They also enrich scenes that call for a crowded stage.

Millamant's acceptance of Mirabell's marriage proposal is beatutifully done by Paola Dionisetti, ber final undertaking to "dwindle into a wife" spoken with a proper understanding of the consciously artificial words.

Rupert Frazer's Mirabell ia inclined to freeze into the attitudes of a tailor'a dummy; but they are graceful attitudes and consort well with the grace of his dialogue.

Avis Bunnage'e Lady Wishfort is *none* the worse for reminding us of bappy comic acting by other pleyers in the same, and similar perts.

The wits are nicely *differentiated, Witwoud (John* Gould) a bespectacled intellectuel, Petulant (Richard Rees) a younger and feebler edition of Mirabell. David Foxxe makes a prize bull out of Sir Wilful, with a mahogany-brown fece and drooping moustacbe, quick on bis feet when there's a maid to be groped, but uncertain on them after indulgence in claret. Fainall's greet blackmeil act is so sternly done by Cierán Hands that I half expected bim to produce a gun.

I always find it hard to distinguish Mrs Fainall from Mrs Marwood at the beginning of the play; but Julie Legrand as the one soon begins to show a basic niceness of character wbile Ann Mitchell as the other grows less snd less likesble. Johenna Kirby and Jill *Spurrier* ace a *fine* pair of servants, and Robert Gwilym'a Waitwell makes a splendidly comic Sir Roland.

Arts Guide

Music/Monday. Opera and Ballet/Tuesday. Theatre/Wednesday. Exhibitions/Thursday. A selective guide to all the Arts appears each Friday.

Music

March 16–22

PARIS

Marie-Catherine Girod, piano: Chopin, Ravel (Mon). Salle Gaveau (563 2030).

Ensemble Orchestral de Paris conducted by Jean-Pierre Wallez, Yvan Chiffoleau, cello, Philip Bride, violin: Haydn, Saint-Saens, Tchaikovsky (Mon 6.30 pm). TMP-Châtelet ((233 4444).

Boris Christoff, bass with Lille's National Orchestra conducted by Jean-Claude Casadesus: Mussorgsky, Stravinsky (Mon). TMP-Châtelet (233 4444).

Nikita Magaloff, piano: Chopin (Tue). Salle Gaveau (563 2030).

Bernard Ringeissen, piano recital (Wed). TMP-Châtelet (233 4444).

Chamber Music – Herve le Floch, violin, Georges Pludermacher, piano: Leclair, Roussel, Pierne (Wed). Radio France, Grand Auditorium (524 1516).

Orchestre de Paris conducted by Claude Bardon, Yehudi Menuhin, violin: Bach, Debussy, Elgar's violin concerto (Wed, Thur). Salle Pleyel. (561 0630).

NEW YORK

New York Philharmonic (Avery Fisher Hall): Rafael Kubelik conducting. All-Smetana programme (Tue). Lincoln Center (874 2424).

Musica Sacra Orchestra and Chorus (Avery Fisher Hall): Richard Westenburg conducting, Kathleen Battle soprano, James Bowman countertenor. All Handel programme (Mon). Lincoln Center (874 2424).

Orchestre Nationale de France (Carnegie Hall): Lorin Maazel conducting, Horatio Gutierrez piano. Dukas, Prokofieff, Rachmaninov (Mon); Rachmaninov, Ravel (Tue). (247 7459).

New Orleans Philharmonic (Carnegie Hall): Philippe Entremont conducting, Yefim Bronfman, piano. Weber, Beethoven, Shostakovich (Wed). (247 7459).

Merkin Hall (Goodman House): Hiroko Ohki piano recital. Ravel, Schubert, Beethoven, Mozart, Liszt, Paganini (Mon); Rachmaninov Trio. Rachmaninov, Arensky, Muczynski, Ippolitov-Iwanov (Tue); Yoav Chad Chamber Ensemble. Crockett, Lauridsen (Thur). 67th W. of Broadway (362 8719).

WASHINGTON

Michaela Petri Trio (Terrace): Handel, Lorenz (Mon). Kennedy Center (254 9895).

National Symphony (Concert Hall): Herbert Blomstedt conducting Haydn, Brahms (Tue, Wed, Thur). Kennedy Center (254 3776).

CHICAGO

Chicago Symphony (Orchestra Hall): Margaret Hillis conducting, Faith Esham soprano, Hilda Harris mezzo-soprano, David Britton tenor, Michael Devlin baritone. World premiere of Darion/Laderman's A Mass for Caio (Thur). (435 8122).

ZURICH

Tonhalle: Tonhalle Orchestra, conducted by Gary Bertini with Martha Argerich and Nelson Freire, pianos and Dieter Dyk and Horst Hofmann, percussion. Bartok and Bruckner. (Tue to Fri). (201 1580).

WEST GERMANY

Frankfurt Alte Oper: Claudio Arrau, Piano, Beethoven. (Thur).

Berlin, Philharmonie: The Berlin Philharmonic orchestra, conducted by Andre Previn and pianist Vladimir Ashkenazy. Rachmaninov and Ravel (Wed, Thur).

BRUSSELS

Cleveland Quartet: Beethoven, Shostakovich and Brahms. Beaux Arts (Wed).

VIENNA

Vienna Symphony Orchestra: conducted by Wolfgang Scheidt. Soloists Jane March (soprano), Diane Elias (contralto), Thomas Moser (tenor), Kurt Rydl (bass). Hindemith, Bruckner. Konzerthaus Grosser Saal (Thur). (721211).

ITALY

Rome: Teatro Olimpico: Piazza Gentile da Fabbriano: The Hayden Orchestra of Bolzano and Trento. Haydn, Petrassi and Weill. Wed. (393304).

LONDON

London Symphony Orchestra conducted by Yuri Simonov and Shura Cherkassky, piano. Tchaikovsky. Barbican Hall (Tue). (638 8891).

London Philharmonic Orchestra conducted by Klaus Tennstedt. Mozart. Royal Festival Hall (Tue). (928 3191).

Philharmonia Orchestra conducted by Bernard Haitink with Salvatore Accardo, violin. Walton and Elgar. Royal Festival Hall (Wed).

Medici String Quartet: Alan Bush, Alun Hoddinott and Edward Cowie (Tue). Purcell Room 6 pm. (928 3191).

Gloriana/Coliseum

Max Loppert

Colin Grahem's 1966 production of Britten's coronation *opera,* brightly *refurbished,* energetically prepared, and by Mark Elder superlatively well conducted, came back to the English National repertory on Tuesday. This is one of the works planned for the forth*coming ENO American tour;* It is a canny choice, for *Gloriana* supplies probably the pre-eminent example of a postwar British nationalist epic, *"forged"* (in Peter *Evans'a* phrase) in "some of the most ottractive nationalist music of our time." As such, it sbould edd brillianuy apt finishing touches to a *company picture* painted otherwise with chamber-size Britten, G&S, modern-dress Verdi, and Prokofiev. (The first American *Gloriano* will form, indeed, the *U.S.* premiere.)

Even those like myself, who may still be troubled by the musico-dramatic false notes struck along the way, and by the sense of mechanical manufacture and even superior banality that affects the makeup of minor scenes and characters, must nonetheless ocknowledge, efter a showing as much filled with vigour and elation as Tuesday's, the distinctive achievement of the whole. This prodoction, more than any other in the Britten stage history, bas effected the revaluation of a work previously neglected and misconstrued; its marshalling of state spectacle begins now to look somewhat simplistic (perhaps the Norwich masque will lose that tinge when thare *is further tonal refinement and* rhythmic security in the cboral singing, currently the performance's weak spot).

But there remains a great deal to edmire in the way Mr Graham bas commingled pubiic

Producer Colin Graham 'has shaped the drama's modern and archaic aspects into a fluent and colourful continnity'

panoply and private emotion, has shaped the drama's modern and archaic aspects into a finent and colourful continuity—in this he has reflected with remarkable sensitivity the best of the score and of William Plomer's libretto.

For the revival there is e new Elizabeth. This counts as one of the most touching and accomplished things that Sarah Walker has done in the theatre; but it is not yet quite rigbt. The music, tailored with comprehensive mastery to the diminished resources of Joan Cross's soprano, is handily compassed by Miss Welker's mezzo; the notea are all there, but on Tuesday a persistent clouding of the upper ones relative to the singer'a warmly beautiful lower registers tended to throw a veil upon the Queen's more commanding pronouncements.

At every moment, ahe holds the stage with telling artistry, yet she seemed too comely, too youthful in ber movements, to *make fullest capital of those coups de théâtre* dependent on the caprices of an ageing woman (the shock that Sylvia Fisher used to register in Lady Essex's stolen finery *could hardly be* repeated here, for Miss Walker looked simply too *ottractive* in it). This is, so far, only a partial presentation but, in such passages as the conclusion of first and last ects, one of ineffable grace and radiance.

The rest of the casting is at *matched strength.* Anthony Rolfe Johnson'a Essex is superb in impetuous passion, remorse, and tenderly poetic lyricism. Neil Howlett's Mountjoy and Jean Rigby's Lady Essex are handsome, strongly lined and sung portraits; Elizabeth Vaughan's Lady Rich is almost too meltlesome (a future Gloriana here?); Alan Opie (Cecil) and Richard Van Allan (Raleigh) bring bold definition to Britten's sketchy embodiments of statecraft; and, in smaller roles, Malcolm Donnelly, Lynda Russell and Shelagh Squires distinguish themselves — only Norman Bailey's blind ballad-singer adds a touch of "cameo" self-conciousness. This is an excellent Britten season at the ENO, and *Gloriona* is by no means its least rewarding instalment.

Sarah Walker

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Monday March 19 1984

Mr Scargill's folly

THE LEADERSHIP of the National Union of Mineworkers is unlikely to change course in the immediate future: but in the interests of its members and the country, it is imperative that it does so soon.

It is now faced with calls for a national ballot from many of those areas where mineworkers have shown, by very large majorities, that they wish to work. It must concede such a ballot: if it does not, the scenes of anarchy unleashed will multiply this week.

Deep radicalism

This cannot be what the NUM wants—not simply on humanitarian or moral grounds, but on tactical ones. The fact is that the mineworkers are battering themselves against a brick wall—not of National Coal Board and Government determination, but of the brute facts of the market and the effects of technical change, which together dictate a reduction in capacity and in the size of the workforce.

The NUM cannot "win" the strike, even if it succeeds in coercing those of its members who wish to work not to do so. But the deep radicalism of its leadership and of many of its members can be put to good use, in their own interests.

The union can continue to ensure that the wages paid to its members remain a reflection of the hazardous, strenuous and essential nature of their work: that the benefits paid to them in retirement are high: that the redundancy payments are generous. In this regard, it was better served by the shrewd combination of tough private negotiations and public amiability displayed by Mr Joe (now Lord) Gormley than it has been by the truculence of Mr Scargill.

It can go further: it should press the NCB and the Government to develop the same kind of new industry schemes which the British Steel Corporation has undertaken in Corby and other areas, with surprising success. Pit villages are, very often, largely dependent on the pit for work: the mere payment of large lump sums means a short-term bonanza for the traders in the nearest town, but little else. A union which demanded the right to work without specifying what kind of work could get somewhere.

The union leadership must know, below its rhetoric, that the coal industry is not being decimated. The need for coal is accepted by all: even if electricity generation were to be progressively taken over by nuclear power (and there are doubts surrounding that) its use as a feedstock is likely to guarantee its future. For the present, the leadership lacks the flexibility and open-mindedness to consider alternatives to head-on militancy or to recognise it may be wrong in its analysis: it may take a humiliation over the next few weeks to encourage a change.

The NCB, too, has responsibilities. As many in it well know, for most of the period since nationalisation has meant the industry has been cocooned from commercial pressures, a state of affairs on which Mr Ian MacGregor, the chairman, has made war. But he had better use the slow, patient tactics of a Fabius Cunctator than the juggernaut of a Hannibal: already, in the precipitate announcement of the closure of Cortonwood in South Yorkshire, he appears to have given the miners there a real grievance.

Right to work

The contraction of employment in an industry as old as mining, with a culture as rich and honoured as it is, with the muscular toughness it engenders, is always likely to cause a deep spasm of rejection which is difficult to control.

The law must be upheld: and thousands of police are today in the coalfields attempting to guarantee the right to work. All sides must now be prepared to show as much reasonableness as they can muster if the next few days are not to result in more injuries, even deaths. The NUM leaders have most to do here, but the NCB and the police have their cases to win before the bar of public opinion, too. Once the immediate crisis is over, union and management must resume a sensible dialogue about the future development of the industry.

Europe's role in space ventures

AMERICA IS inviting the Europeans to join it in the next greet adventure in spece, the construction and launching of a manned space station to circle the earth. The proposal bas heen put to European Governments with characteristic American ebullience hy Mr James Beggs, head of Nasa. The $9bn (£6.2bn) project, be said, would secure western leadership in space for the *1990s* and *would serve* international co-operation.

Mr Beggs should have heen prepared for a wary reception. At a guess, the Europeans would have to spend some $2bn on their share in a space station. Welcome though that might be to aerospace companies, nearly every European Government is scratching around for money or trying to bem in puhiic spending.

Fair share

Besides, the puhlic mood in Europe is not in favour of gigantic projects, and wbat is more, some Europeans feel they received a poor deal from the Americans in the last similar deal. It was they who designed and built Spacelab, a menned vehicle that was taken aloft last year by the American space sbuttle. *Under the* agreements Spacelab now is American property.

That does not, of course, constitute a case for Europe going it alone on any space station. The task is too big, and, for the foreseeahle future, European know-how and experience are insufficient to it. The preseot choice is between leaving the next steps in the conquest of space to the Americans or co-operating with them.

If co-operation it is to be—and that still is a big "if"—iopsidedness as in the case of Spacelab needs to be prevented. The *Europeans* are certain to be the smaller partner. But they must bold out for a fair share not only in the production of a joint space station, but also in its utilisation.

Any decision for or against joiniog the Americans will have to depend heavily on an assessment of the benefits to be derived from the manned space station that the Americans have proposed. To be worth the effort it would have to provide something in addition to the ability to survey the earth, for instance for map making or prospecting for minerals. These tasks have been carried out satisfactorily by existing unmanned satellites.

Men on e space station, it has been proposed, could make experiments and ultimately carry on industrial processes which require the near-zero gravity of space. *New materials* could be produced and known ones processed more efficiently. The difficulty is that any sucb plans take us to and beyond the present limits of human *knowledge*.

Information

When all the available information has been weighed there still will come a moment when a decision needs to be made whether or not to leap into the dark. That decision should not be influenced by considerations of prestige or a blind determinatioo to keep up with the *Americans. Nor* should the wish be paramount to provide work for research laboratories or the eerospace industry.

It can already be shown that the early, highly risky phase of activities in space can lead into something more immediately practical. The simpler, unmanned satellites, besides their military applications, have proved themselves in *surveying the earth and as relay points* for telecommunications.

In that particular field international co-operation is already a fact. A number of intra-European and transatlantic alliances exist between private companies; European satellites bave been started on American launchers, and the French-developed Ariane rocket is making a promising bid for similar business from American clients.

These are areas of space exploration where the money and effort invested by governments over a number of years *is slowly beginning to pay off*, not only for military, but also for civil purposes.

At the present stage, and even if all possible precautions are taken, the costs and risks of breaking new ground are too beavy for the private sector. The glamour and excitement of space exploration, together with the technological spin-off which is claimed for it, may encourage governments to provide the necessary funds.

But the final test must be whether a new venture into space yields knowledge which, directly or indirectly, is ultimately capable of practical and profitable application.

Alfonsin's hundred days

Argentina: euphoria gives way to reality

Jimmy Burns in Buenos Aires on a growing economic crisis

THE 57th birthday of Sr Raul Alfonsin, Argentina's new President, passed almost unnoticed last week. Only a few faithful supporters gathered in front of Buenos Aires' Casa Rosada palace to offer their congratulations. Inside, the President sacrificed only a small slice of his working day to blow out one candle on an undersized cake.

Perhaps, as his aides insisted, it was all meant to convey the essential bumility of a committed democrat—in sharp contrast to the self-importance of the generals who ruled Argentina until last December.

But *another image persists*: of e Government which, despite some remarkable foreign policy and buman rights achievements, is no longer applauded with the huhbling enthusiasm that greeted its installation exactly 100 days ago.

The reason is economic: Argentina's politically fickle and highly materialistic "silent majority" fears e sharp drop in its standard of living as it sees the Government grappling with a chronic inflation problem at home and a mounting crisis abroad over the country's buge international debts.

The debt crisis could have far-reaching effects, both for the Argentine economy end the international banks. The immediate problem stems from the Government's refusal to use its growing foreign exchange reserves to reduce significantly interest arrears on its $43.6bn of international borrowings.

That could force U.S. creditor banks at the end of this month to classify some of their loans to the country as "non-performing," which would result in a cut in their declared first quarter profits. It would set an unfortunate precedent, for throughout the current Latin American debt crisis, the banks have somehow managed to keep their debts on a performing basis.

At the end of last week senior government officials insisted that they wanted an agreement on the arrears before the March 31 deadline, but Argentine's refusal to pay has seemed designed, in part, to exert pressure on the banks for a rescheduling of its debt on relatively generous terms.

However, as e precondition for any rescheduling, the banks want the Government to reach agreement first with the International Monetary Fund on an economic recovery programme.

An IMF team is expected in Buenos Aires this week to start what will be extremely delicate talks, for very high stakes. It is clear the Fund will demand austerity of the Alfonsin Government. *But the key question* is: how much?

A fierce programme of retrenchment could erode popular support for the Government, and create a head-on confrontation with the trades union movement, carrying with it the risk of a descent into political chaos which could destroy democracy and the prospects for debt repayments.

As it is, Sr Alfonsin is walking a political tightrope—watched closely by the military—as he tries to restore a sense of dignity and freedom to a country that has for years lived in an atmosphere of fear and corruption.

By the standards of any nascent Third World democracy, his achievements in such abort a time are remarkable.

He has ordered the court martial of nine members of former military juntas; he has aired the once-taboo subject of human rights violations, with the opening of mass graves and the prosecution of those alleged to be responsible for atrocities; he has reached a peace agreement with Chile (the two countries have a long-standing and still unresolved dispute over the Beagle channel); and he has paved the way for eventual negotiations with the British over the Falklands. Under a military Government, all these changes would hava been unimaginable.

Progress on the economic front has not been so rapid—possihly because of the sheer difficulty of coming to grips with the problem and because the Government's first priority was ection on buman rights.

The Government has yet to unveil a detailed economic programme and those policies it bas announced have not all been internally consistent.

A key aim is to reduce inflation sharply—it is currently running at a record 436 per cent per annum — through a prices freeze. But the Government is coupling this with a commitment to increase real wages this year by at least 8 per cent, in the hope that the extra spending power will help achieve its goal of 5 per cent GDP growth.

Inflation, however, has been rising rather than falling.

As part of the prices battle, the Government last week ordered a seven-day ban on the sale of meat—starting evidence of the severity of the problem, since beef is to Argentines what tea is to Englishmen.

Publicly, officials dismiss the recent price increases as a temporary problem but privately they admit to a dilemma—President Alfonsin is trapped on the one hand by the expectations generated during the election campaign—when he promised a bold redistribution of income and increased social benefits—and on the other hy the growing realisation that tha state bas been living beyond its means and needs a dose of austerity.

This is ahown most clearly by the country's budget deficit. Over the past year it has risen from 8 per cent of GDP to 17 per cent, according to provisional Central Bank figures.

A similar gulf between initial expectations and barsh reality has confronted the Government in its international debt negotiations. When Sr Bernado Grinspun took over the Economics Ministry in December he appeared convinced that Argentina's return to democracy was sufficient to ensure the goodwill of the international financial community.

But in recent weeks the bankers' patience has been wearing very thin. The Minister's repeated assurances that "Argentina will honour all its debt obligations" have seemed increasingly hollow alongside mounting arrears and the absence of any clear-cut debt strategy.

The news that Argentina will soon draw up an IMF letter of intent, as a prelude to a commercial debt rescheduling programme, has been greeted with relief by the banks.

However, the Government's willingness to embrace economic austerity at the behest of the IMF and banks should not be over-estimated.

There is no love lost in Argentina for the international banking community. During their years in the wilderness, the politicians repeatedly railed against the banks for indifference to, or complicity in, the economic failures and political repression of successive military Governments.

Despite the economic strains—and provided an acceptable deal can be struck with the banks and IMF—most observers here believe that Sr Alfonsin's Government should manage to stay on its tightrope and consolidate democratic institutions.

Public opinion polls show that Sr Alfonsin's personal standing remains high. His strength lies in the force of his personality and in the relative weakness of the two institutions that have the greatest capacity to destabilise the Government: the military and the unions.

The armed forces—with the exception of an unrepresentative fringe—have reached a quid pro quo with the Government. The military has accepted the Government's court-martialling of former junta members (and about a dozen other officers) in return for guarantees that there will be no full-scale witch-hunt for those responsible for human rights violations and the Falklands debacle.

The armed forces believe this is their best hope of keeping the country's military institutions more or less intact—but it does not mean the military accepts that its past actions were politically or morally wrong.

This distinction is vital. It means the bulk of military officers are still convinced they are an important factor in Argentine politics—and will continue to keep a close watch on Sr Alfonsin's performance.

As for more conventional politics, the constraints on the ruling Radical Party were underlined last week when it failed to push key union reform legislation through parliament. The party lacks a majority in the upper house, the Senate.

The bill—a modified version of which is expected to come before parliament in May—is a bold attempt to break the hold exercised over the unions for the past 40 years by bosses linked to the Peronist party, now the main opposition.

The legislation proposes a system of direct union elections at branch level, with proportional representation giving a significant say to non-aligned minorities.

Nevertheless, Sr Alfonsin appears to have come round to accepting that some kind of historic compromise with the current labour leadership is necessary, if his economic policies are to stick. He has already announced that he intends to secure a "social contract" with both sides of industry to help implement a more effective prices and incomes policy.

But for the moment, Sr Alfonsin's survival will rest on his ability to convince the average Argentine that democracy may involve sacrifice as well as freedom—and that this belt-tightening could mean much more than restraints on his intake of red meat. In his own words, "for democracy to function here every Argentine must feel it will work."

ANXIOUS BANKS PRESS FOR A FRESH IMF AGREEMENT

ARGENTINA *is now way behind* other Latin American countries in coming to terms with its international debt.

While most other leading borrowers are well on the way to *sorting out their financing needs* for 1984, Argentina has yet to sign a rescheduling of debts falling due as long ago as 1982. Throughout that time Argentina has been chronically short of foreign exchange; yet so volatile are its domestic politics that it has not even been able to meet the conditions for drawing more than $500m of the $1.5bn credit arranged by creditor banks to see it through the worst days of 1983.

In this sense the latest drama does little more than confirm the impression that its problems belong more rightly to the theatre of the absurd than to the annals of economic history. Nowhere else in Latin America did debt problems surface as a direct result of a war (the seizure of the Falkland Islands in 1982). Nowhere else has a central bank governor been thrown in jail for trying to renegotiate his country's debt; and nowhere else bave these negotiations taken place against a backdrop of general elections in which a military dictatorship was ousted by a democratic party with massive popular support.

Theoretically, Argentina ought also to have been able to escape the worst ravages of a debt crisis that has engulfed the whole continent. It is self-sufficient in energy and a net exporter of food. Even last year at the height of its political and economic crisis, Argentina managed to notch up a trade surplus of $3.1bn. Thanks to strong grain exports in the first quarter, this year's surplus should be even higher, officials say.

That Argentina now stands to become the first major Latin American borrower to let its interest arrears run for any length of time at more than 90 days has only heightened bankers' sense of the unreal.

Although Argentina is paying interest on some of its debt—for example on foreign bond issues and on the $1.1bn short term bridging loan arranged as part of last year's package—it has paid no substantial interest to bank creditors since early last October. It claims that banks should extend new credit if they want the arrears reduced.

For this, however, the banks' negotiating committee, which is chaired hy Citibank, has decided a new agreement with the International Monetary Fund is needed.

The most optimistic scenario is that an agreement could be sewn up at the Inter-American Development Bank annual meeting in Uruguay in the last week of March. This would be too late for Argentina to reduce its arrears by the end of March deadline but progress towards a reduction could mean that U.S. banks would escape the need to declare Argentine loans as non-performing.

Many bankers believe, however, that it could take well into the second quarter to resolve the problem. This would mean that second-quarter profits at U.S. banks would rebound as Argentine loans are first put on and then taken off the "non-performing" list.

Even so, Argentina faces difficult talks with its bank creditors from whom it hopes to win major concessions for its 1984 rescheduling package.

The banks are worried that concessions to Argentina would undermine their policy of conceding lower margins and longer maturities as a reward to countries which perform well under their IMF programmes and in servicing their debts.

Few bankers believe that Argentina will never come to terms with the IMF. But after nearly two years of frustration and confusion, some are beginning to worry that the reality Argentina presents at the end of the day will be that its finances are even less sound than Sr Grinspun, the Finance Minister, would have the world believe.

Peter Montagnon

Venice triumphs, Sherwood profits

For James Sherwood, president of Sea Containers, the shipping and container leasing company, a gamble upon the good taste of the British public bas paid off handsomely at the eleventh hour.

The Genius of Venice exhibition at the Royal Academy, which closed at the weekend, bas finished in the black. It will make a modest profit, in fact, for the RA.

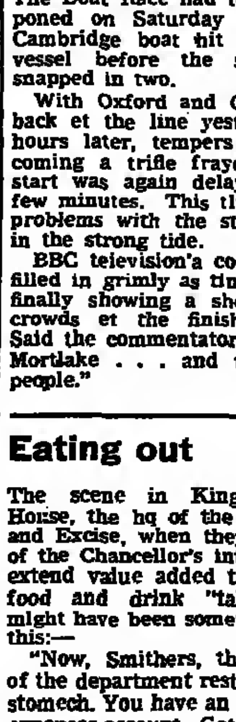
That is good news for the unsubsidised RA which is also launching a multi-million pound appeal. And it is even hetter news for Sea Containers which also runs the Orient Express to Venice and owns the Cipriani Hotel there.

Sherwood's group guaranteed the show against loss up to a figure of £150,000. It now looks as if he will not have to hand over any cash. *And, as a reward* for his risk, he has enjoyed more than three months of excellent corporate publicity.

Mind you, it was touch and go for the Venice exhibition. Up until a month ago the RA was getting fewer than the 3,000 visitors e dey it needed to hreak even.

Then the queue's re-appeared, perhaps coaxed in by a radio advertising campaign. Such was the lete rush that the exhibition was extended by a week.

Altogether 450,000 peopie paid about £1m to see one of the most flamboyant art shows in decades.



"Budget ruined Twickenham—no beer ap afterwards just arguing wine vintages with some Pontypool forwards"

Men and Matters

Race relations

The Boat Race had to he postponed on Saturday after the Cambridge boat hit a moored vessel before the start and snapped in two.

With Oxford and Cambridge back et the line yesterday, 24 hours later, tempers were becoming a trifle frayed as the start was again delayed for e few minutes. This time it was problems with the stake boats in the strong tide.

BBC television'a commentary filled in grimly as time passed, finally showing a shot of the crowds et the finishing line. Said the commentator: "This is Mortlake . . . and these are people."

Eating out

The scene in King's Beam House, the hq of the Custom's and Excise, when they learned of the Chancellor's intention to extend value added tax to hot food and drink "take-aways" might have been something like this:—

"Now, Smithers, the honour of the department rests on your stomach. You have an unlimited expenses account. Get out there and eat. Find out what the man in the street likes hot, and report back."

Our mythical Smithers rose to the challenge, and his work is enshrined for all time in Notice BN 2/84.

Smithers showed no mercy for fish and chips, Chinese, Indian, Greek, Italian "and similar" take-away meals, hot dogs, hamburgers, pies, toasted sandwiches, or hot drinks. All have been taxed.

He even stretched his net to snare cups of soup and roasted chestnuts.

But hy that time even his strong civil servant's digestioo must have been jibbing at the enormity of the task. The *following passage will, I feel,* survive in Eoglisb literature long after current legislation has been forgotten. "The incidental provision of coid items, which are not separately charged for, such as a dollop of mustard, tomato sauce, or chutney, should be ignored."

As it is

The French publishing house Gallimard is wondering how much fiction will be left in the novel *Baraka* by the time it hrings out the French edition next month.

Since John Ralston Saul's latest tale of murky goings-on in the international world of big business was published by Granada in Britain last year real life has been acting out *its fictional* episodes in an uncanny way.

The book is about the political and commercial realities of Morocco, laced with drama in the top management of a U.S. *oil major, and* with Vietnamese offshore oil, and weapons for sale, added in for entertaining adventure.

Even while Saul's fiction was considered for French publication General Dlimi, the Moroccan figure upon whom Saul bases a fictional strong man was killed in Morocco by a rival.

Then, last month, riots erupted in Morocco spurred by religious purists. In Saul's book fictional "puritans" start such a riot only to heve the government deny any religious connection—and so it was in real life.

But the most remarkable similarities with the real stuff come in the Vietnamese episodes. There life is almost faithfully following the Saul plot. Western oil companies who found oil in Vietnam offshore waters bave had to pull out and let the Russians develop it.

And the Vietnamese are starting a big sales drive to sell their cache of captured U.S. weapons and military equipment left behind after the Vietnam war.

Haute canteen

The hotelier Tom Laughton (hrother of the late Charles Laughton, actor) who has died at the age of 80 at Scarborough wbere the family ran the Royal Hotel claimed that he loved the life, and particularly the ambience, of the Royal.

"In whet other business" he onceasked "could I have worked and also been able to liva like a millionaire?"

Certainly not in the business he was asked to sat up during the war by Ernest Bevin, then minister of labour.

Bevin, who loved London luxury hotel comfort himself, asked Laughton to set up the *National Service Hostels* Corporation, and be its chairman. He huilt and ran hutted camps throughout tha coalfields to provide a home for some 20,000 Bevin boys—young man conscripted to work in the mines instead of the armed forces.

Laughton decided he would provide the cheapest food in Britain—but it would be reted with the hest. He evolved e ticketing system for what became the famous 5d (old money) snacks. For that sum a mineworker could buy such dishes, as beans on toast, egg and chips, and sausage and mash.

There was food at all hours and Horlicks at bedtime.

Such high living today might bring the flying pickets down to earth.

Observer

FOREIGN AFFAIRS: EEC SUMMIT

Only if they act together

By Ian Davidson

BARRING ACCIDENTS, there is a reasonable chance that the European Community summit which opens today in Brussels may break the back of the crisis which has been hanging over it for the past year. If it does, the detailed components of any emerging compromise are likely to look, in the cold dawn, like a tacky set of unsatisfactory compromises. But the bare fact, or the emerging prospect, of agreement may make it possible, *for the first time in 20 years*, for the member states to get back to the politics of European integration.

Complete agreement on all the outstanding issues is, of course, virtually inconceivable. Nevertheless, the omens are reasonably favourable. The ten agriculture ministers have made a start on a reform of the common agriculture policy (CAP) with a set of fairly draconian measures designed to halt the Community's runaway dairy output. There seems to be a consensus, at least among the larger member states, that procedures must be tightened up to impose greater discipline on Community spending in future. There seems to be a reluctant acquiescence to Mrs Thatcher's demand for some durable system to limit Britain's excessive contributions to that budget. Above all, and providing nobody says anything excessively stupid, there seems to be a mood abroad that the time really has come for the heads of government to settle.

"Before the Athens summit," says a Commission official, "there was an atmosphere of pessimism. Today there is a sense of 'agreement fever.'" But then Athens was a spectacular example of how badly a meeting can go astray when everybody, but *everybody*, says the wrong thing in the wrong tone of voice.

Nothing guarantees that things won't go as badly astray this time, too. Since this crisis presents not only the first opportunity, but also quite possibly the last, for the British government to push through *long overdue reforms*, Mrs Thatcher can be counted on to hang tough.

The danger is that she may misjudge how far she can push the other member states. She believes, probably sincerely, and certainly with good reason, that most of the changes being demanded by the British government would be in the general long-term interest of the Community. But while the *case for stricter budgetary discipline* and a diversion of resources away from the CAP are logically unanswerable, other member states may baulk at Mrs Thatcher's vision of discipline, or fear they could not get it past their national parliaments. That is the danger of a crisis where the first opportunity may also be the last.

Even *if the summit* were to go swimmingly, with all kinds of theatrical breakthroughs, the effects on the Community's finances and the balance of its policies would be likely, even over the medium-term perspective of the next five years, to be pretty meagre. If the Community is like a super-tanker, it could take about ten years to get it onto a significantly different course, unless there is a substantial expansion of its range of activities.

Take the CAP. The farm ministers have made heroic *if belated efforts to slow down* the juggernaut of milk over-production. But the new production ceiling has been fixed some 13m tons a year above consumption, and by the end of this year the Community *expects to have accumulated a* 1m-ton butter mountain. Getting rid of this surplus, and of the 350,000 tons of beef stocks, will cost fabulous sums. In other words, the farm ministers may have risked mayhem in the rural areas by starting to curb the growth of over-production; but they have done little to *eliminate* the over-production, which means that, for as far as the eye can see, we shall have to go on paying for large quantities that no one wants.

No sooner will the Community start to rein back the output explosion in the north of *Europe, than it will have to* fork out larger sums for Mediterranean agriculture. Notionally, Spain and Portugal ought to join at the beginning of 1986, and sure as eggs is eggs the Community will have to spend more to *ease the* competitive shock for farmers in southern France, Italy and Greece, to say nothing of compensation for Morocco, Algeria, Tunisia and Israel.

All this sheds a rather grim light on the British demand that agriculture spending should get a declining share of the Community budget. For unless there is an implicit prospect of further reductions in the quotas for surplus products, the chances must be that farm spending will continue to increase for several years at least.

Heads of Government et the last EEC summit in Athens

If the British demand is to be satisfied, *there seem to be* only three options Either there must be a faster growth in non-farm spending, which runs counter to Mr Thatcher's *idées fixes*; or there must be legally binding constraints which keep *permanent pressure on the farm* policy indefinitely; or else any replenishment of the Community's finances must be kept so small as to ensure that this year's crisis is repeated in two or three years' time

What it comes down to, is that any successful deal will depend on a judicious mix of legally binding constraints, public and unambiguous political undertakings, and initiatives at a higher political level which inspire and reinforce sentiments of trust and optimism. Any government which attempts to limit the negotiation to legal constraints designed, like a dead man's will, to circumscribe the Community for ever regardless of circumstances, may doom it to failure.

The problem is that the *British Government machine* feels much more intensely about the injustices and irrationalities of the past than about the opportunities of the future.

Yet in fact, circumstances have seldom been so propitious for a re-launch of the European idea based on genuine feelings of trust and perceptions of common interest.

That may seem an odd thing to say in the middle of a mega-crisis which looks like all previous *crises* except that *it is* much bigger. Moreover, most previous crises have simply turned out to be preparations for the next crisis. But after 17 years of stagnation and wrangling, there are serious reasons for thinking that there is now a convergence of conditions which could point to a different future.

The conventional wisdom is that the stagnation has been due to conflicts of ideology or to conflicts of national interest, or both at once. As far as it goes, the conventional wisdom is not wrong. In the swinging '60s, when rapid prosperity could have made everything easy, progress was ham-strung by ideological squabbles between the Gaullists and the federalists. Gaullism was attenuated under Pompidou and Giscard in the '70s, but now progress was ham-strung by the economic crisis and by the priority which each *government* gave to national interest. But this conventional wisdom does not go far enough.

The conflicts of the 60s were due, not to ideology in the abstract, but to the gulf between the perceptions by the member states of themselves, of each other, and of Europe's place in the world. The Benelux countries knew they had no future except as part of Europe; Germany saw the Community as a way of exorcising the past; but De Gaulle's *certaine idee de la France*, based on the idea that his country had a superior role to play in the world, excluded the notion of political equality in Europe. By definition, Gaullism reinforced German dependence on the U.S.

By the time Britain joined the Community, it had largely abandoned its global pretensions, but its relations with the rest of Europe were bedevilled both by renegotiation and by the narrow-minded distaste of the political establishment for all of the political aspirations inherent in the Rome Treaty. Meanwhile, the politico-economic disequilibrium of the Franco-German axis was accentuated by German disdain for the economic incompetence of most of its partners, to say nothing of the extravagance of the Brussels bureaucracy.

As we emerge from recession, it is clear that many of these perception gaps have narrowed sharply. Not merely have the French stopped boasting how they would overtake the Germans economically, but even the Germans are becoming anxiously aware that their economy may be vulnerable in the hi-tech revolution.

Behind a residual facade of Gaullism, France's political priorities have radically shifted. Not merely has Francois Mitterrand taken dramatic steps to reinforce the military-security relationship with Bonn, but he has invested more personal energy and political capital than his predecessors would ever have dreamed of doing, in his efforts to bring about a settlement of the Community crisis.

The debate over nuclear weapons and Nato strategy has certainly played a part in bringing French and German perceptions closer together. But the single most important factor is anxiety over the volatility and unpredictability of American foreign policy, and over American egoism in economic policy. There was a time when transatlantic quarrels were treated as family rows—tiresome but not fundamental. Today it has become more difficult to evade the idea that volatility, unpredictability and egoism are the inevitable consequence of the American character multiplied by the U.S. political system, and that they are less and less likely to be tempered by the efforts of an internationally-minded professional elite in Washington.

Such a diagnosis, in a period of East-West tension and economic stress, would demand that the European countries should take energetic steps to acquire greater leverage over their environment, economically, politically and militarily. This they can only do if they act together.

From the collapse of the European Defence *Community* in 1954 to the present day, the strongest glue holding the European *Community* together has been the commercial interest which came from trading and horse-trading. *Today's* summit is the culmination of its biggest-ever horse-trading struggle. Perhaps it will explode in rage. But even if it does, the new, external factors forcing the Europeans closer together will still, inexorably, be there.

Lombard

Decoupling from U.S. rates

By Samuel Brittan

"In contrast to virtually the whole of the post-war period, UK three-month and long-term rates are now lower than American rates. As long as American rates remain near their current level, it is highly desirable that this advantage be maintained."

Mr Nigel Lawson, UK Budget Speech, March 13.

SINCE the British Chancellor uttered these words key UK interest rates have fallen further while U.S. interest rates have continued to rise. At the long end of the market U.S. long term Treasury bonds have yields well over 2 per cent higher than their British equivalents.

It is important to ask how long this discrepancy can continue and whether it can widen further. For there is a clear risk of U.S. interest rates moving higher, even considerably higher. The U.S. recovery is continuing to surpass expectations, while inflationary expectations are gathering force.

Contrary to much wishful thinking the Fed is not following an interest rate policy, but an imperfectly specified targeting of monetary aggregates, with obligations to "stop, look and listen" if the Fed funds rate threatens to exceed sensitive points, such as 10 per cent recently. Although the Fed will avoid embarrassing the President unnecessarily, the main constraint on its action is fear of the impact on developing country borrowers; and that constraint is not absolute, especially if a falling dollar is giving these countries alternative relief. Congressional action on the budget deficit is more likely to benefit long rates than short ones, if it occurs.

Fortunately, there is no rigid link between interest rates in different centres. While a positive differential of New York over London may be novel, such differentials have been common and much larger in relation to other centres with traditionally strong currencies.

The key to interest rate differentials is to be found in expected currency movements. As U.S. costs and prices are historically highly uncompetitive at present exchange rates and the U.S. is already experiencing an $80bn per annum current account deficit, the downside risk on the dollar is quite high. The dollar was pushed up for much of 1983 in part by the feeling that it was likely to go higher, for reasons of confidence and political stability, as well as better investment prospects in the U.S. These favourable factors are no longer so prominent. Thus the odds are that for most of the time expectations about the dollar will be sufficiently bearish to allow interest rates in the other main centres to remain substantially below New York.

But clearly the prospect cannot be guaranteed. Any number of events can occur to restore for a short or long time, the attractions of the dollar. These range from an international crisis to events in the presidential elections or in Congress, or Fed action which persuades the market that it will be able to prevent a major fresh inflation after all.

If and when such a confidence resurgence occurs, the UK, like other countries, would still be able to attempt a low interest rate policy. But the condition for so doing would be that sterling would have to fall so far that the market expected its next move to be upwards—in other words a deliberately contrived undershooting. Unless sterling started this episode from a very high level on the weighted average, or the episode was expected to be brief, the inflationary risks of such a policy badly need underlining.

If any such painful choice is required, it will be time to remember that although there is no target for the exchange rate it is nevertheless given a role in the prose of the Medium-Term Financial Strategy quite as important as either of the two targeted monetary aggregates.

The exchange rate constraint will be limited but not abolished if Europe and Japan co-ordinate their interest rate policy so that the trade-weighted average of any one currency falls much less than its rate against the dollar.

There are clearly sufficient international as well as domestic uncertainties for one to hope that the Chancellor will remind the House in his winding up speech that interest rates can move in both directions, however virtuous he has been about public sector borrowing.

Letters to the Editor

Offshore export possibilities

From Mr G. Mackay

Sir,—May I make three observations on your excellent article (March 9) on the offshore construction industry?

You quote the offshore supplies office's (OSO) estimate that in 1982 UK industry's share of the UK sector offshore contracts was 73 per cent. As you point out, this is a gross figure and if foreign ownership of UK companies were taken into account, the UK share would fall substantially (probably to about 50 per cent). For some purposes — e.g., estimating employment creation — the 73 per cent figure is the appropriate one to use but for others — e.g., assessing UK industry's export capabilities — it is misleading. I am concerned that too much reliance is put on the higher figure (which if it were accurate would be very encouraging) and that the government bodies concerned with the offshore industry have consequently become complacent about the need to increase UK involvement both in domestic and overseas markets.

The export possibilities for the construction industry, in the form of production platforms and modules, are geographically limited. This is not generally regarded as the high technology end of the offshore industry and most countries with offshore fields, such as China, believe that they are capable domestically of building such structures, with relatively little foreign help. Also, these items are very costly to transport and the UK has relatively high labour costs. The main export opportunities lie at the high technology end of the industry.

The UK presence is generally weakest in the higher technology sectors. Much greater interest in that export market has in fact been shown by French and Norwegian firms rather than UK. Further, a large proportion of the UK firms actively pursuing the Canadian offshore market are in fact the UK subsidiaries of foreign firms.

G. A. Mackay.
34 Morningside Grove,
Edinburgh, Scotland

Town Hall staff

From Mr R. Legge

Sir,—Further to Mr Law's comments (March 14) one must query the outcome of the Government policy to reduce its grants to councils compared with the stated objective of this "rate capping." In my area, and in many other areas, councils have met the loss of Government finance in two ways. Rates on businesses and householders have been increased by more than would otherwise have been necessary in order to make good part of the shortfall. Essential services and employment in them, from hospitals and schools to help for the aged and libraries have been and are being reduced.

At the same time scarcely any bureaucrats in the town halls have lost their jobs although they are presiding over shrinking essential services and unnecessary expenditures continue on a large scale, ranging from the well publicised antics of the GLC to the provision of expensive sports centres and playing fields although the existing sports facilities have been shown to be grossly under utilised.

This outcome is precisely what any ordinary citizen could foresee and the supposed objective of more cost effective local government is, not surprisingly, as far away as ever. Cynics might observe that, in any case, the real objective was simply to reduce the public sector borrowing requirement.

R. F. Legge.
87, Penshurst Gardens,
Edgware, Middx

Pupils and peace studies

From Mr J. Johnson

Sir,—If, by following a course of "peace studies," pupils are learning to reject nuclear weapons on British soil it certainly does not follow that the teachers are necessarily incompetent or subversive.

This administration has poured considerable sums of money into producing and distributing, free of charge, vast quantities of well produced material which is clearly intended to persuade the ignorant that current nuclear-based "defence" policies are right and proper.

Unfortunately none of this material comes anywhere near explaining how nuclear missiles could ever be fired in defence of this country. Field Marshal Lord Carver is not alone in pointing out that the threat to respond in kind to a Soviet pre-emptive first strike on, say, Greenham Common lacks credibility. The inevitable Soviet response would utterly destroy, sooner or later, the population of these islands. Our American allies, for their part, are not going to retaliate on our behalf and thus risk a nuclear counter-attack on their own heartland. Nuclear deterrence works—but not for us.

Whether or not this line of reasoning is correct it is the nature of the official response which should concern us if we value our freedom. A sinister process, more reminiscent of totalitarian regimes, is now under way in our own democracy. Civil servants of all kinds seem to be under more than usual pressure to suppress and conceal any doubts they might harbour about nuclear proliferation.

Teachers might be thought especially dangerous since some of them imagine it is part of their duty to teach people how to ask awkward questions. Since nobody can really prove that lessons are never biased the object of the current campaign against "peace studies" is clear at the outset. In practice all real discussion will be banned from the classroom and that will suit the campaigners very well. For, like their parents before *them, children will learn* to leave all that sort of thing to the experts and, like previous pre-war generations, the youngsters of today will never know what hit them.

John M. Johnson.
3, Halesden Road,
Heaton Chapel,
Stockport.

Oil prospects in Guatemala

From the President, Basic Resources International (Bahamas)

Sir,—We were disturbed by the article "Elf reviews prospects in Guatemala," which appeared on November 10, 1983, because we felt it gave a misleading impression of petroleum activities and prospects in Guatemala. Basic Resources International pioneered oil development in Guatemala. The following, we hope, will enable a more accurate assessment.

Petroleum engineer, H.K. van Poollen and Associates has estimated proven reserves in the contract area at 22m barrels, as opposed to the estimate of 14m reported in your article.

The life span of the reservoirs is far longer than one year, contrary to the statement in your article. All reservoirs are producing; none has been exhausted.

It is not at all unusual for crude oil to contain hydrogen sulphide. The sulphur content of Guatemalan crude is low in comparison with Venezuelan and Mayan crudes.

It is not true that the crude oil reservoirs, when discovered, contained 30 per cent water. For the most part, the zones placed into production contain no water. Following the most modern conservation procedures, the fields have been injected with water at the periphery, a technique that increases the estimated recovery of the oil in place from the usual 15-20 per cent to approximately 50 per cent.

We believe the article grossly exaggerated the physical conditions and political difficulties associated with working in Guatemala. There were minor, rare attempts to interfere with the pipeline during 1981 and early 1982. There was no inteference with production of any significance. In our opinion, none of these incidents was political.

It is true that Elf Aquitaine, as operator, spent up to $28m in drilling one well. This, however, is not the norm in Guatemala. Indeed, the previous operator on Block No. I never spent anywhere near that amount in comparable drilling, and recent estimates have been received from third parties that such wells could be drilled at less than half the expenditure by Elf Aquitaine.

John D. Park,
650 Fifth Avenue,
New York 10019.

Publish and be damned

From Mr R. White

Sir,—The Inland Revenue issued a Press release on February 29 regarding the publication of a list of bodies, the subscriptions to which would qualify for tax relief. In itself a laudable project and one for which accountants have been pressing for some little time.

The Press release, however, *contains a sting in the tail* particularly during a year of unprecedented consultation and discussion on the shape of future tax legislation: the list referred to is to be protected by Crown Copyright and is not to be reproduced in whole or in part without permission. Similar copyright constraints have been placed on several earlier major consultative documents including those which contain a significant quantity of draft legislation.

I would welcome some clarification of Inland Revenue policy on this issue. In principle I cannot see why any material published by the Inland Revenue either for consultation, as a booklet to explain aspects of taxation or as a statement of practice, should *be subject to copyright* provisions. I would have thought the widest dissemination of all this material is to be welcomed and no restriction on reproduction can be justified.

Roger White.
1, Puddle Dock, Blackfriars,
EC4.

FINANCIAL TIMES
Monday March 19 1984

Terry Byland on Wall Street

Time ripe to ring in new era

THE U.S. telecommunications industry was unfortunate in timing its current upheaval to coincide with the most severe post-war shakeout on Wall Street.

The break-up of the Bell Telephone system, together with the sudden acceleration in computer-based telecommunications technology, opened the way to dramatic opportunities.

But just as the 1982-83 bull market was led forward by the new high-technology based stocks, so the sudden downturn in prices this year has seen those same issues taking the brunt of the punishment.

In the case of the telecommunications groups, the setback may have been overdone, according to Wall Street analysts. Taken as a group, the telecommunications leaders have lagged the Standard & Poor's 400 stock index since October, with the gap widening since Christmas when the industrial stock market began to fall in earnest.

The sector was depressed before the rest of the market because of its own particular clutch of uncertainties. These comprised chiefly the possibility of action by Congress to regulate the industry – and therefore inhibit the opportunities for newcomers to seize the initiative in new technical developments – and prolonged uncertainties over the stance of the Federal Communications Commission (FCC) on charges for access to the national telephone network.

But now, with the proposed legislation recently defeated in Congress and the FCC's stance clarified, telecommunications stocks could be poised for recovery.

The settlement of the turmoil over access charges is beneficial for MCI Communications, which has performed erratically in the stock market since plunging last August when the FCC's first written opinion differed from its comments at the public hearing.

The doubts over access charges also caused a slowdown in commercial customer contracts with MCI because of hints that AT&T was considering a 10 per cent price cut for long-distance calls. Alarmed also by a sudden jump in MCI's costs for leased AT&T lines, Wall Street hurriedly downgraded its profit forecasts to around 83 cents a share for 1984.

But this should *not* mask the revenue flow likely to accrue as the beginning of equal access to telephone networks swells MCI's list of customers.

Mr Harry Rosenthal, who monitors telecommunications stocks at Bear, Stearns, says that if 25m of the 193m U.S. telephone subscribers are offered a choice of vendors of long distance telephones this year, then MCI would need to win only 2 per cent of them to increase its customers by one third," and swamp its facilities." He believes that MCI is now a 25 per cent earnings growth company.

The greatest beneficiary from the shake-up in the U.S. telephone industry is Northern Telecom, the Canadian equipment manufacturer which sells less than one third of its output in its home country. U.S. revenues jumped by more than one quarter last year, boosted by the conversion in North America from analog to digital switches in the industry.

But Northern Telecom's stock ran ahead of the market towards the end of last year and has suffered, perhaps too severely, in the 1984 shakeout.

With strong existing contracts with the Bell companies and an order backlog of $1.5bn at the end of last year, further earnings progress is likely. Wall Street forecasts for 1985 range to an increase in earnings of around 25 per cent.

The dismantling of the Bell network has thrust the new Bell Operating Companies (BOCs) into unfamiliar areas, presenting opportunities to the equipment suppliers. Anixter Bros, which warehouses and distributes the 10,000 different types and sizes of cables on which the telephone industry depends, moved quickly this year to become the first non-affiliated distributor of Western Electric, the former manufacturing arm of the old AT&T group.

Anixter followed this up by arranging a joint venture with Cincinnati Bell which enables Anixter to master the inventory system of the Bell system. With the BOCs unprepared to handle the appallingly complicated inventory management which Western Electric will no longer supply, Anixter looks set for profitable growth.

There have been signs in the stock market that the technology sector is girding itself to lead a general recovery. It may be that investors should eschew some of the more futuristic technology stocks in favour of the bread and butter stocks. Telephones are unlikely to go out of fashion as quickly as video games.

France's trade deficit widens to FFr 4.6bn

BY DAVID HOUSEGO IN PARIS

FRANCE's difficulty in achieving a lasting turnround in its external account has emerged again with the disclosure of another bad trade deficit in February of FFr 4.6bn ($569m) on a seasonally adjusted basis.

This brings the accumulated deficit for the first two months of the year to FFr 10.2bn against FFr 43.4bn for the whole of 1983 and an official target this year of bringing the trade account into balance as a result of the Government's austerity policies.

The Government blamed the shortfall on an unexpectedly sharp rise in gas imports (up 25 per cent on January), rising imports of petrol products (up 10.5 per cent on the previous month) and a slowdown in food exports. But after the decline in the deficit to a monthly average of FFr 1bn in the final quarter of last year, the acceleration in January and February to a monthly average of FFr 5bn marks a serious reversal of last year's improving trend.

The disappointing trade figures come on the heels of other February statistics politically damaging to the Government. Unemployment in February, also on the basis of statistics released over the weekend, rose 8.6 per cent on a 12 month basis to a new seasonally adjusted record of 2.19m.

Reflecting the growing number of redundancies in industry, the new rise in the number of jobless means that the Government has effectively abandoned its election pledge of holding unemployment below the 2m mark.

On the basis of the 12-month figures, the increase in the level of unemployment has been rising over the last four months from an annual rate of 2.9 per cent in November to 4.5 per cent in December, 5.6 per cent in January and now 8.6 per cent in February. This follows a period in October and September when the rate of increase in unemployment was still falling compared with the 20 per cent annual rate that the Government inherited on coming to power.

The other bad February figure was a 0.7 per cent increase in the month-on-month consumer prices index. This brings the accumulated increase for the first two months to 1.4 per cent compared with an official objective for the year of bringing the increase in inflation to under 5 per cent.

Warner to buy back Murdoch stake with aid from Chris-Craft

BY WILLIAM HALL IN NEW YORK

CHRIS-CRAFT Industries, the New York-based television and industrial products company, could boost its stake in Warner Communications, the troubled U.S. entertainment group, to 29 per cent.

This follows the defeat of Mr Rupert Murdoch, the Australian publishing magnate, who had been trying to win control of Warner.

Chris-Craft, which stepped in to help Warner defeat Mr Murdoch last December, announced over the weekend that it was underwriting a $72m Warner rights issue of convertible preferred stock which will be used, along with extra bank borrowings, to repurchase the 5.57m Warner shares held by Mr Murdoch's News International.

Mr Murdoch's decision this weekend to accept Warner's $31 per share offer for News International's 8.5 per cent stake in Warner, will net his group a profit of more than $40m on its shares plus an additional $8m for its expenses.

In return, News International has agreed to drop all litigation against Warner, and not to buy shares or try to influence management in either Warner or Chris-Craft for the next 10 years.

The move is a setback for News International's U.S. expansion plans. Mr Murdoch, chief executive of News Corporation, News International's parent, said he was "disappointed" that Chris-Craft had been unwilling to sell its 23 per cent stake in Warner to New International.

"We would have much preferred to be a buyer rather than a seller. At the time we purchased the shares we made what we hoped would be a long-term investment. That investment subsequently became the focus of extensive litigation. Because we saw no expeditious resolution to the conflict, we believe it is in the best interests of the News Corporation's shareholders to invest the company's resources in a more productive manner," Mr Murdoch said.

Mr Steven Ross, Warner's chairman, welcomed the settlement which, he said, would end "the costly disruption" of Warner's business.

The group, which lost $417.8m on revenues of $3.4bn in 1983 primarily because of problems at its Atari home computer and video games unit, will probably have to borrow an extra $100m to buy back the News International stake.

Chris-Craft said yesterday that its majority-owned subsidiary, BHC, had agreed to take up its share of Warner's 7 per cent convertible preferred stock issue and would also purchase any stock not subscribed by the rest of Warner's shareholders.

Following the issue, Chris-Craft and its subsidiaries will possess between 24.7 per cent and 29 per cent of Warner.

Genscher plans to visit Moscow

BY JAMES BUCHAN IN BONN

HERR Hans-Dietrich Genscher, the West German Foreign Minister, will visit Moscow in May for talks with Mr Andrei Gromyko, his Soviet counterpart.

The Bonn Foreign Ministry, which received the invitation from Moscow last week, is modestly hopeful that the Soviet leadership is seeking to re-establish contacts with Western Europe after the sound and fury that followed the deployment of nuclear missiles in West Germany, Italy and the UK last autumn.

Herr Genscher will follow Sig Giulio Andreotti, the Italian Foreign Minister, who is expected in Moscow on April 22. Sir Geoffrey Howe, the British Foreign Secretary, is due to visit the Soviet Union in June.

Bonn officials have no illusions that Moscow is about to depart from its position that the new missiles must be taken out before valid arms control can restart.

They also suspect that, for reasons of face and because of the U.S. presidential election in the autumn, Moscow is not seeking formal contacts with Washington.

The invitations to officials of the three most important deployment countries can just as easily be seen as a continuation of Soviet efforts to divide Western Europe from its main ally.

But diplomats hope that Bonn and its allies can use an evident Soviet readiness to keep up a dialogue with Western Europe to shift the immediate focus away from the missiles.

They are encouraged in this not only by the surprisingly onpolemical Gromyko-Genscher meeting in Vienna, which immediately preceded deployment, but also by Soviet participation in the European security conference in Stockholm and the talks on troop reductions in Europe which re-opened last week.

British payments key to EEC summit

Continued from Page 1

These elements all concur with the preferred British approach, which goes on, however, to seek a system limiting payments on the basis of gross domestic product. Moreover, while Mrs Thatcher will want to start by agreeing a figure for what Britain's payments should be after EEC enlargement – she suggested 400-500m European currency units ($345m-$430m) at the abortive Athens summit – other governments want to start with an agreement on the size of any cut in British payments.

During secret foreign ministers' talks last week cuts offered by other governments ranged from Ecu 750m to Ecu 1bn. If Mrs Thatcher is required to negotiate on this basis she may well argue for a Ecu 1.5bn reduction while being ready to settle for Ecu 1.2bn. The lowest figure would have left the UK paying about Ecu 700m last year.

Agreement seems closer on the other main budgetary issue of how to control EEC spending. France's suggestion that governments should set annual targets for overall spending growth is generally regarded as promising.

The UK seems confident of finding a formula for keeping the annual rise in farm spending below the annual increase brought about by inflation and economic growth in the EEC's available budget revenues. In time this would cut farming's 66 per cent share of the budget.

Despite the broad success of last week's negotiations on farm prices and reform other *prime ministers* will also form minorities in pleading for special arrangements.

Dr Garret FitzGerald, the Irish Prime Minister, has the hardest task in trying to win exemption from the system of milk production quotas agreed last week. Ireland wants to expand its dairy output – said to be worth 8 per cent of GDP – by more than 2m tonnes in the next five years. Britain and other governments, by contrast, only want to concede a small reduction in the 600,000 tonnes cut in Irish dairy production which the quota system would impose.

Peter Riddell in London adds: Sir Geoffrey Howe, the Foreign Secretary, yesterday tried to reinforce Britain's "positive" attitude to the summit by repeatedly referring during a television interview to the widespread recognition in the EEC of the need to put different systems in place.

He described existing French proposals for a partial rebate of Britain's EEC contributions as "unacceptable" and stressed that the issue of the refund for 1983 rested on a firm agreement

McGlinchey extradition welcomed in London and Dublin

By Our Political and Foreign Staff

THE EXTRADITION at the weekend of Mr Dominic McGlinchey, the alleged leader of the Irish National Liberation Army, from the Irish Republic to Northern Ireland was yesterday welcomed by ministers of the Dublin and London Governments.

This is the first extradition for security charges, as opposed to ordinary criminal offences, and follows Mr McGlinchey's arrest on Saturday, near Shannon Airport.

Mr McGlinchey, who was yesterday being questioned by the Royal Ulster Constabulary, has been hunted in connection with the killing of a postmistress during a robbery.

He has also claimed involvement in a wide range of terrorist incidents on both sides of the border.

The move will help to reinforce the recent marked improvement in relations between Dublin and London, especially ahead of the report due next month from the New Ireland Forum, the Dublin-sponsored body which has been examining new political options.

The weekend's events should also strengthen the hand of Mr James Prior, Britain's Northern Ireland Secretary, against Conservative parliamentary critics of his security policy, although it will not alter Ulster Protestant criticisms of the Forum.

The extradition came immediately after a hastily summoned meeting of the Supreme Court in Dublin, which ruled in favour of implementing its 1982 judgment which in practice ended any distinction between "political" and other offences in many extradition cases.

Previously, lawyers had argued that offences were political in character and that under international law suspects could not be extradited to another jurisdiction.

The court's decision represents one of the most important advances in security co-operation since the *enactment in the Republic of the* Criminal Jurisdiction Act in 1978 which allows cross-border trials.

Mr Garret FitzGerald, the Irish Prime Minister, commented yesterday that the Supreme Court had decided that some offences were so grave that they could not be regarded as political.

He added that it was "a sad day for nationalism when murder is described as a political offence."

Similarly, Sir Michael Havers, Britains Attorney-General, yesterday spoke of his "great sense of relief" at the extradition. In a radio interview *Sir Michael said* be was very pleased at the speed of the court's action.

The decision bas, however, led to some disquiet within the opposition Fianna Fail party in Dublin, with calls for a long-term consideration of its effects.

UK miners resist calls for ballot

Continued from Page 1

who wished to work would be able to do so.

Sir Michael Havers, the Attorney General, said yesterday that the police would be "doing no more than trying to maintain the law" by turning back coaches and cars full of pickets – even before they had begun their journeys.

He said that decisions to do so must be based on police judgement of how many pickets it was reasonable to allow through to the pits.

Calls for a national ballot have now come from Nottinghamshire, Lancashire, the Midlands, Burham, North Wales, the white collar and several craftsmen's sections.

Mr Scargill and his senior colleagues have taken some heart from the voting figures in areas such as Lancashire, North Derbyshire and Northumberland which, *while falling short of the 55 per cent* needed for strike action, do show a higher number in favour than in the past two ballots.

He might decide to call for a reconvened special delegate conference, the mechanism which imposed an overtime ban in December which began the present spate of industrial action.

This would have the advantage to the uninn leadership of giving it more time to launch a strong campaign for united action, and possibly then hold a national ballot when it judged a strike vote more certain.

The National Coal Board (NCB) will today press its action for contempt in the High Court against the Yorkshire NUM. It will claim that the area defied two injunctions granted to it last week by not calling off picketing by its members.

World Weather

		°C	°F
[illegible]			

Readings at mid-day yesterday.

C-Cloudy D-Drizzle F-Fair Fg-Fog H-Hail R-Rain S-Sun Sl-Sleet Sn-Snow T-Thunder

Peru 'to start repaying loans'

Continued from Page 1

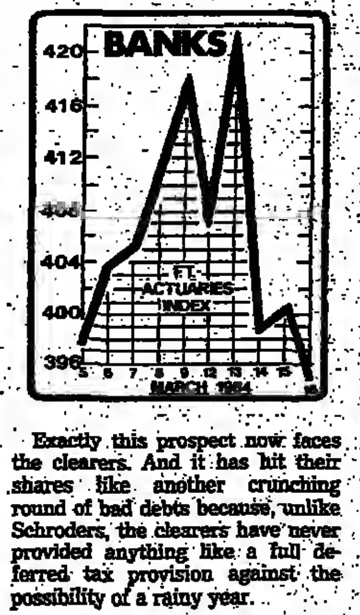
any new money from commercial bank creditors this year.

Its balance of payments deficit fell by nearly half last year to $882m from $1.6bn in 1982. By next year it should have fallen further to $765m.

Response to Peru's new $2.6bn rescheduling package has also been generally favourable. Commending the package to bankers in London, Mr Jensen forecast that Peru's economy would grow by 4 per cent this year. He disclosed that last year, however, output fell by 12 per cent in real terms – a worse performance than was expected.

THE LEX COLUMN

Tax trauma for UK clearing banks



Purveyors of hot eel pies and fresh, roasted chestnuts could be forgiven some confusion last week over Britain's new value added tax ruling on hot take-away food; but budget queries in this department were settled by the men from the ministry in pretty short order. The precise impact of the changes in capital allowances, by contrast, could take a little longer to resolve.

Their impact on the leasing industry will be fundamental. Despite some supposed relief over the non-appearance of a financial services tax, the clearing banks' shares have plummeted as a consequence. The *City of London has seen a cottage* industry spring up devoted entirely to quantifying the damage inflicted on the clearers' accounts.

Schroders did nothing to disperse the fog the day after the budget by touching its cap to Mr Lawson and reporting profits blessed with £6½m post-budget windfall from its UK leasing subsidiaries. In short, the tax benefits of leasing have been enjoyed in a variety of ways. But for the clearers these benefits have for some years been a ride on the tiger's back.

Rental income

Leasing has made little or no contribution to the clearers' reported pre-tax profits over the years. The depreciation of the leased assets has more or less matched the rental income earned. But the taxman has ignored the depreciation, having in effect rolled it all up into the first year 100 per cent allowance.

As a result, the rental income has boosted the (pre-allowances) total taxable profits. To create a capital allowance sufficient to ensure another zero tax liability, the banks have therefore had to increase their investment in capital assets for leasing. This has led in turn to bigger rental income, and so on.

To illustrate the present consequences, take a bank with static taxable profits from banking of £100m a year. Rental income climbing from £10m up regularly to £100m over ten years requires a £200m allowance, hitherto gained from extra leasing, to reduce taxable profits to nil in year 10. If no addition at all to the leasing portfolio is made after year 10, the bank's rental income in year 11 will not be far short of £110m and it will face a tax charge on this plus its £100m banking profits. Its real tax bill, that is to say, at a 50 per cent rate will actually exceed these £100m underlying profits – not just for year 11 but for a run of years until its leasing portfolio starts to decline.

Exactly this prospect now faces the clearers. And it has hit their shares like another crunching round of bad debts because, unlike Schroders, the clearers have never provided anything like a full deferred tax provision against the possibility of a rainy year.

This is not to say that the changes now imposed on the leasing industry by the budget look set to materialise over night. Dozens of major capital purchases seem to have been signed up within nine hours of Mr. Nigel Lawson's speech on Tuesday. But the haste was probably unwarranted. This year's 75 per cent first year allowance can apparently be taken together with the new 25 per cent declining balance allowance and the corporate tax rate reductions. This all adds up to something of a bonanza year for leasing until March, 1985; post-tax returns to the lessor – assuming unchanged leasing rates – could actually be higher this year than before the budget.

In the event, lease rates in many cases have already fallen significantly, not least as a consequence presumably of the clearers' understandable desire to squeeze as much volume as possible out of the market while it remains viable.

When first year capital allowances disappear altogether in 1986, however, the clearers will almost certainly have to confront their tiger.

Since 1981, they have all kept deferred tax provisions on this score roughly equivalent to a quarter of their potential tax liability. The remaining uncovered 75 per cent represents, on best estimates, about £2.4bn.

The impact of the higher taxes on the banks' cash flow over the next several years will vary from clearer to clearer depending on their portfolio income streams; but for accrual purposes, all of them will surely need to set aside an adequate deferred tax provision this year. Fortunately for them, the £2.4bn neither allows for residual new leasing business still left to them nor takes account of the falling corporate tax rate.

If the clearers plump for a provision equal to 60 per cent of the full liability and assume a 40 per cent tax rate, then their aggregate bill as calculated by stockbrokers Rowe and Pitman will be roughly £750m. If they go for a 100 per cent provision on the basis of a 35 per cent rate, this year's topping up will cost them at least £1½bn, enough, were it to be taken as a current tax charge, to push all four of them into substantial net losses for 1984.

Common approach

This should keep the bankers, their auditors and half the accounting standards establishment busy for a weekend or two before December – producing, it must be hoped, a common approach. SSAP 15, the accounting standard which is largely the basis of the present 25 per cent provisions, could be used to justify a current tax treatment. The clearers, though, could equally reasonably argue that neither the resulting distortions to their earnings per share records nor any old-fashioned adjustments to reserves would be half as sensible as a series of straightforward extraordinary debits.

The second course might at least have the merit of squaring best with the reaction of the stock market, where attention will anyway be focused less on this year's debacle than on the damage to the banks' balance sheets and the implied contraints on future earnings growth.

No doubt the Bank of England's pre-budget homework gave some thought to the more accommodative stance on free capital ratios which may well be required of it if the £1½bn provision is adopted. Capital bases will shrink very roughly by £225m at Midland, £450m at Barclays, £340m at Lloyds and £460m or rather more at National Westminster. This will leave all four capital ratios uncomfortably close to the Bank's 4 per cent limit – and could prompt closer scrutiny of Midland's £60m dividend.

Perhaps the one crumb of comfort for the clearers is that their vital equity to assets ratios at the U.S. Federal Reserve have been struck after full deferred tax provisions already. At least in the U.S. their tribulations might seem a storm in the accountants' teacup.

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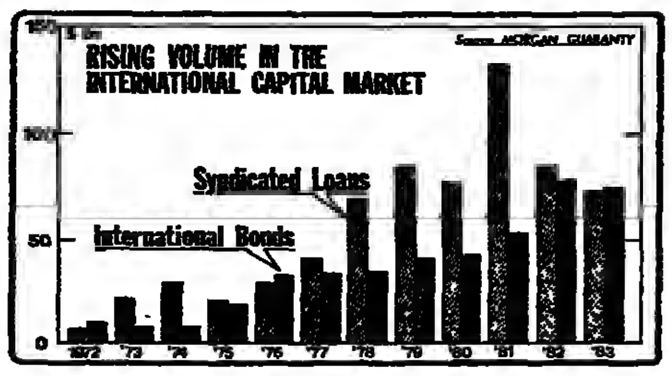
International Capital Markets



The shift of emphasis apparent in 1982 continued last year, with bond issues again easily outdistancing syndicated loans in volume. Bankers are responding to the changed environment with some radical innovations

Profound changes in structure

BY PETER MONTAGNON

THE COMBINATION of high interest rates and the developing country debt crisis has left a seemingly indelible mark on the international capital markets over the past year.

After two years of great uncertainty the whole structure of the markets is undergoing profound change. Last year new issue business in the international bond markets again ran at exceptionally high levels, reaching more than $75bn, or double its level six years ago. At the same time volume in the syndicated loan market slumped. At $73.9bn it was $10bn below the level of 1982 and $50bn less than its peak in 1981.

It is hard to escape the conclusion from these figures that the securities market, which was long the junior in terms of volume, has now emerged as a more powerful force in the international capital markets than the syndicated credit market.

Certainly the early months of 1984 have produced an extension of last year's trend. Dynamic new issue activity in the international bond markets has contrasted starkly with a general stagnation of Eurocredit business apart from some highly exceptional jumbo loans for oil companies contemplating takeovers.

Indeed, bankers in the syndicated loan market complain glumly nowadays that the bond market is stealing their business. Borrowers which used to raise much of their money in the credit market have switched increasingly to the Floating Rate Note, a bond issue whose rate of interest changes regularly in line with that prevailing in the short-term money market.

According to the U.S. investment bank Salomon Brothers issuance of Floating Rate Notes climbed to nearly $14bn last year from just over $11bn in 1982 and only $7bn in 1981. From the borrowers' point of view such a trend is hardly surprising. Floating Rate Notes carry lower interest margins than bank credits; they can be arranged for longer maturities; and there is no risk that an upheaval in the international money markets could cause lenders to withdraw from the operation prematurely.

Satisfying clients

What is perhaps more surprising is that lenders which include many large international banks should be prepared to forego some of the high returns available in the Eurocredit market for the sake of satisfying their clients' demand for Floating Rate Note finance. One frequently cited justification is that the debt crisis has shown that borrowings in the bond market escape rescheduling. Most of the afflicted countries have managed to service their international bond borrowings long after they had given up on their commercial bank debt.

Yet there is an even more fundamental force at play. Faced with a need to reschedule billions of dollars in developing country debt banks are experiencing a reaction of distaste for cumbersome long-term credit commitments from which they can extricate themselves only with great difficulty. There is a premium to be paid for marketability.

What is important is that a bank which buys a floating rate note knows that it can also be sold restoring some of the flexibility to its balance sheet that was taken away by the debt crisis in Latin America. That the returns on Floating Rate Notes are low seems to matter little. Most borrowers in the Floating Rate Note market are top quality credit risks and banks need such business to offset the high-yielding, high-risk Latin American loans that are now stuck on their balance sheets.

This is not to say that banks are the *sole* force behind the blossoming Floating Rate Note market. Its growth also owes much to the new found appetite among U.S. savings and loan institutions which need money market related investments to match the high-yielding accounts they are now allowed to offer their depositors. These institutions have become a new source of funds for the capital markets, lending for the first time through the Floating Rate Note market to countries such as Sweden. But commercial banks have played an important role and for the long term development of the capital markets the concept of marketable debt that has entered their thinking through the Floating Rate Note market is of crucial importance.

It has spread from the Floating Rate Note market into the eurocredit sector itself where loans are increasingly traded among banks. This secondary market is still imperfect, but it is one way for a bank to improve its balance sheet liquidity and earn extra profits.

Imagine, for example, that a bank has an eight year credit to a European borrower on its books which bears interest at a margin of ½ per cent over Eurodollar rates. By parking the credit with another bank for a year at a margin of, say, ⅜ per cent and using the space on its balance sheet to make another loan to the same borrower it is increasing its overall yield without affecting its gearing ratio.

Potentially damaging

Trading of debt also extends to rescheduled loans, though here banks are more wary because such business is only possible at a discount with potentially damaging write-down implications for a bank's entire loan portfolio to a given customer.

Turnover figures for secondary market trading of bank credits are impossible to calculate. Most bankers reckon that only a tiny fraction of total outstanding loans have actually changed hands. More important has been that the development of the secondary market over the past year has had a profound effect on business attitudes.

Faced with a shortage of "plain vanilla" jumbo loans, banks are now keen to use what business they do have to make extra returns out of fees and trading. In the process participants are becoming more like investment bankers and less involved with straight commercial lending.

It is not just that the new concept of marketability has changed the face of the syndicated loan market. Other factors such as currency movements have come into play. The old jumbo syndicated loan seems to have been replaced with a smaller more special operation designed to tap a regional or specific currency market just at the moment when funds are available. In recent months currency diversification has become a new vogue in the bank credit market resulting in credits such as £500m for Sweden, ECU 450m for Italy's oil conglomerate ENI, C$150m for Malaysia and SwFr 150m for Spain.

Part of the impetus for this is obviously a *perception* among borrowers that they need to rely less heavily on the dollar as a borrowing medium. Indeed the *soaring U.S. currency* and high real interest rates have led most borrowers to look carefully at their cost of funds.

Some such as Sweden, Denmark and Electricité de France have launched large Floating Rate Notes to prepay more expensive commercial bank debt, but there is also an active market in debt swaps reaching across currencies as well as fixed and floating interest sectors of the capital markets.

By swapping floating rate debt for fixed interest obligations incurred by another borrower, even second line credit risks can obtain fixed rate funds more cheaply than by borrowing directly in fixed rate markets. To do so, however, they need the floating rate debt in the first place and that has to be provided by commercial banks in the full awareness of the debt swap potential.

It all adds up to a capital market in which the two main compartments — bonds and credits—are coming much closer together.

Such a fusion of the two sectors has long been given lip service in the banking community. Now, in the aftermath of the debt crisis and high real interest rates, the two sectors of the market really do seem to have become interdependent, though it must also be said that the credit market has had more to learn from the bond market than vice versa. The question is whether this is a passing phase. Or has the market structure changed for good?

A short answer is that markets never look back. Just as it would be inconceivable for foreign exchange markets to revert to their practices under fixed exchange rates, so it is unlikely that the capital markets will readily unlearn their new approach to business. Less certain is the pace of future change.

In the short run capital markets are still beset with great uncertainty. Many of the fundamental aspects of the developing country debt crisis remain unresolved. The dollar, which was riding high on exchange markets throughout 1983, has now begun to weaken in the face of the growing U.S. current account balance of payments deficit. Fears are growing that interest rates in U.S. may start to rise again as the recovery continues while Federal deficit remains at record levels.

On the *political* front prospects seem to be increasing that the U.S. may decide to scrap interest withholding tax. At a stroke this would undermine the justification for a separate bond market for U.S. borrowers in Europe, while many bankers believe that the Floating Rate Note market may have over-reached itself.

Experiments such as a 40-year issue for Sweden or the $250m issue for the World Bank that was priced at a small margin over the U.S. Treasury Bill rate rather than the higher eurodollar deposit rate may simply be more than the market can bear.

At most, however, this could lead to a slowdown in the new Floating Rate Note issue level that was set in the first two months of the year. Few bankers believe that the market will wither totally as quickly as it blossomed, though it might run through a more difficult patch if, contrary to expectations, interest rates did turn decisively lower. And even if margins on Floating Rate Notes do rebound from their lowest point, they would still have to rise a long way to catch up with the Eurocredit market. That means that bankers in the credit market cannot reasonably expect easily to recover the business they have now lost to the bond market.

Moreover, the pattern of world balance of payments is now such that most imbalances are narrowing, with the exception of the growing U.S. deficit and Japanese surplus.

Not only are the developing countries running a much reduced deficit; so are the smaller industrial countries which have provided the capital markets with much business in the past. Among the group of 10 richest countries France, Italy, Sweden and Belgium are also among those which have cut their borrowing needs from the capital markets by improving their balance of payments.

Debt reduction

Nor has the economic recovery produced much in the way of additional corporate demand for finance. Several years of high real interest rates have made corporate treasurers wary of incurring new debt. Indeed many have used the increased cash flow resulting from a better business climate and the buoyancy of world stock markets last year to reduce their relative indebtedness.

From both the perspective of sovereign finance and corporate lending the fundamentals do not therefore seem to speak in favour of much incremental growth in capital market business—unless, that is, banks and investment houses can find new ways of helping borrowers to reduce their financing costs on their existing debt and improving its maturity profile. It is a climate that calls for more inventiveness and innovation from both the bond and credit markets.

In short the capital markets of 1984 require bankers to live much more on their wits than on their assets.

CONTENTS

Expansion slow despite U.S. recovery

World economy

MAX WILKINSON

IT MAY be true that what is good for General Motors is good for the U.S. but it is by no means so obvious whether the general benefit extends to Nissan, Volkswagen or Jaguar Cars.

Last year General Motors produced better results than most people dreamed possible in the dark days of the recession. The performance of the U.S. economy itself consistently outpaced expectations during 1983. GM, along with the major part of the U.S. corporate sector, has breasted through the obstacles of high real interest rates and the trading disadvantages of the high dollar.

But so far the improved fortunes of the U.S. economy have had only a weak effect on demand in most of the rest of the world's developed economies. Only the UK and Japan managed growth rates of as much as 3 per cent, while the overage growth for the European continent was bogged down at 1 per cent.

This continued sluggishness, compared with U.S. growth of over 7 per cent at an annual rate in the second half of 1983, has been widely blamed on the persistence of high U.S. interest rates and the soaring dollar. Both are a consequence of the fiscal expansion which produced recovery of demand in the U.S.

At least until the early part of last year the general wisdom seemed to be that European governments were stretched on the rack of high interest rates because they dared not risk the inflationary consequences of a slide in their currencies against the dollar. If they let their domestic interest fall vis-à-vis U.S. rates, it was felt that exchange rates could suffer.

This idea appeared to be reinforced by the dire troubles of the French franc in 1981 and 1982 and the sudden sharp slide of sterling from November 1982 through into the early spring of last year. In both countries interest rates were raised at different times to defend the currencies. In the UK, moreover, there was still the memory of the autumn of

Mr Donald Regan, U.S. Treasury Secretary: need to reduce budget deficit after the Presidential elections

Mr Nigel Lawson, UK Chancellor: pursuing a course of strict fiscal and budgetary rectitude

1981, when the authorities pushed up bank base lending rates by 4 percentage points in two stages, mainly to defend sterling and to prevent a resurgence of inflation.

By last autumn, however, there seemed to be a more relaxed general view of the relationship between domestic European policies, U.S. interest rates and the dollar. A quiet policy of "delinking" had been pursued in West Germany, the UK and other countries, where domestic interest rates were edged downwards without catastrophic consequences for for exchange rates. Although the dollar continued strong, the feeling in the markets and among the authorities seemed to have changed, in two related ways.

Competitive edge

First, there was a perception, articulated by the Organisation for Economic Co-operation and Development (OECD) in Paris (and by U.S. officials) that a high dollar was not necessarily bad for the rest of the world.

It gave other countries' manufacturers a competitive edge in U.S. markets and in third countries where they were competing against American companies. It was also realised that the rise in the dollar was related to the weakness of oil prices and of other commodities priced in dollars to a greater extent than had sometimes been thought. The dollar was therefore exonerated from some of the blame for putting up the import bills for oil and other commodities in terms of other currencies.

If the dollar had not risen, it was argued, oil and other prices would have been higher in dollar terms, so that oil would not necessarily have been much cheaper in terms of other world currencies.

Secondly, sentiment in the foreign exchange markets seemed to be coming more olive to the "fundamental" considerations affecting the value of currencies rather than the relative movements of interest rates. For the dollar this meant that attention was more sharply focused on the rapidly growing current account deficit on the balance of payment, which is likely to approach $100bn this year.

This underlay the almost universal conviction among European central bankers and in U.S. official circles that the dollar would hove to fall "sooner rather than later" in 1984, and possibly quite steeply.

But a fall in the dollar will not be an unmixed blessing for the rest of the world. It will increase the competitiveness of U.S. industries, perhaps just at the time when domestic demand for their products is starting to tail off. It will also increase inflationary pressures in the U.S. at a time when the combined effects of a rapid recovery and a huge federal budget deficit may already be causing some acceleration of prices.

Against this, the burden of debt repayments by Third World countries, much of it denominated in dollars, will be substantially eased. But it may be premature for the richer nations to heave a sigh of relief.

The indebted countries and their creditors must remain anxious about the level of U.S. interest rates for as long as U.S. budget deficits remain at around $200bn a year. On present projections there is no prospect of deficits falling from this level, even if economic recovery continues at a steady rate. Mr Donald Regan, the U.S. Treasury Secretary, has made some general remarks about the need to reduce the deficit after the November Presidential election is out of the way. However, it remains to be seen whether the administration will have the stomach for the necessary fights with spending lobbies, even assuming that President Ronald Reagan is re-elected.

In any case, as the *OECD has* pointed out, there is bound to be a substantial time lag before actual deficits are reduced, even if the task is put in hand immediately after the Presidential election.

For the next two years at least, therefore, it seems that U.S. interest rates will need to remain high to attract domestic savings and foreign capital into Government debt funding. And a weakening of the dollar may push up U.S. interest rates. This is because a falling dollar will make U.S. Government bonds less attractive to overseas investors. For the time being, however, a large capital inflow is essential if the U.S. Federal Reserve intends to fund the deficit fully and stick to its money supply targets. Overseas investors might therefore have to be tempted by higher interest rates to offset the risk of a falling dollar.

Nor does there seem much evidence yet that continued high real interest rates will stimulate savings and so lead to a different equilibrium between borrowers and lenders. In the developed world last year the proportion of income going into net savings (saving minus borrowing) declined. This lower savings ratio enabled consumers to increase their spending and, particularly in the UK, this was the main engine of recovery.

Weak revival

Company profits have increased rapidly in most countries from very low levels, so that the relatively weak revival of corporate investment in stocks and fixed capital has so far been able to take place without any large rise in loan demands from the corporate sector.

It is doubtful, however, how far the recovery can proceed in the U.S. or elsewhere without companies needing to borrow more to finance investment. That, in turn, poses the question of whether the present high interest rates will hold back the recovery by depressing corporate borrowing and therefore investment below the levels it would otherwise, have reached, particularly in Europe.

Nevertheless, there is a firm consensus that recovery will continue during this year and at least well into next year. The OECD predicts that output will rise by 3¼ per cent in the developed world this year, with the U.S. leading the way with growth of 5 per cent followed by Japan at 4 per cent. The prospects for the West German economy have recently been looking better and growth of 3 per cent this year seems well within reach, while in the UK the Treasury is also predicting growth of the same order.

One of the major uncertainties must be whether the acceleration of growth will lead to a resurgence of inflation from the developed world average of 5¼ per cent last year.

To prevent this, a continuation of fairly tight financial policies seems probable, particularly in the UK, Japan and West Germany, with continued efforts to reduce budget deficits.

In the U.S. there are already signs that the inflation rate may be picking up somewhat from the average of about 4 per cent for last year and financial markets have begun to be anxious in case a future Administration should find itself unable to fund the deficit and resort to the printing presses.

However, it may be that the markets' fears are a complete deterrent to inflationary financing, for in the present climate of opinion any substantial rise in the money supply would probably lead to a sharp rise in long-term bond yields. The authorities could not, therefore, escape the high interest rate penalty by the methods of the 1960s and 1970s and would have little temptation to stray from the path of monetary virtue.

If that is the case, governments are left with little option but to pursue a course of fiscal and budgetary rectitude. That at any rate seems to be the conclusion of most European governments. It is being pursued with enthusiasm by Mr Nigel Lawson, Britain's Chancellor, and with almost equal strictness—though much less enthusiasm—in Socialist France.

The inevitable consequence is that recovery is proceeding slowly. Unemployment seems set to continue its rise in Europe, though at a slower rate than recently, and the mutual benefits of increased trade show no sign yet of matching that of previous cycles.

THE WORLD ECONOMY
(per cent rise over 12 months)

	1983	1984	1985†
Real output (per cent rise)			
U.S.	3½	5	3
Japan	3	4	3
Germany	1¼	2	2¼
OECD Europe	1	1¼	1½
Total OECD	2½	3½	2½
Current balances ($bn)			
U.S.	−43	−82	−99
Japan	22	31	36
Germany	5	5	7

	1983	1984	1985†
Inflation (private consumption deflator)			
U.S.	4	5¼	5½
Japan	1½	1½	2¼
Germany	3	3¼	3½
Total OECD	5¼	5¼	5¼
Unemployment (per cent of labour force)			
U.S.	9½	8	7¾
Japan	2¾	2¾	3
Total OECD	9	9	9

† First half at annual rate.
Source: OECD.

Bulk lending opportunities diminish

Balance of payments trends

PETER MONTAGNON

CHANGING WORLD balance of payments trends and the developing country debt crisis have combined to produce a marked shift in international banking flows over the past years.

Total international bank lending has begun to grow much more slowly. The Basle-based Bank for International Settlements estimates that it grew by only $51.5bn in the first nine months of last year compared with $141.2bn in the corresponding period of 1982 and $165.1bn in 1981. New lending to non-oil developing countries dwindled to $8.4bn from $14.7bn and $23.1bn respectively.

But it is not just because of the developing country debt crisis that bank lending has slowed down. With the fall in oil prices and a reduction in interest rates that has reduced debt service charges the balance of payments deficits of many other borrowing countries have begun to drop, reducing their need for bank finance. At the same time oil-exporting Opec countries now face a balance of payments deficit and have given up their role as suppliers of funds to the international banking system.

With hindsight it is clear that some contraction in lending to non-oil developing countries was inevitable. Before the crisis broke it was growing at an unsustainable level of about 20 per cent annually. When it became clear that U.S. interest rates were set to remain high in real terms, exacerbating an already heavy debt service burden, banks had little option but to draw in their horns on lending to developing countries. What has come as more of a surprise—and a disappointment—to a banking community seeking alternative outlets for loans is the way the needs of other customers have diminished at the same time.

While non-oil developing countries reduced their balance of payments deficit to $45bn last year *from $65bn in 1982*, the industrialised world is also littered with success stories on the adjustment front. France, for example, which has been a major borrower from the banking system, ran a deficit of only FFr 29bn last year and this year expects its payments to be in balance.

Estimates from the Organisation for Economic Cooperation and Development (OECD) also show that Sweden cut its deficit to $750m from $3.5bn; Denmark more than halved its shortfall to $1bn; Italy turned a deficit of $5.5bn into a surplus of $1.5bn and Spain reduced its payments deficit of $3.5bn from $4.2bn.

WORLD CURRENT ACCOUNT BALANCES

	1981	1982	1983	1984
OECD	−28	−30	−24	−42
Opec	52	−16	−31	−32
Non-oil developing countries	−76	−65	−45	−40
Other non-OECD countries	−10	3	4	2

Source: OECD

The result has been what the Bank for International Settlements calls a "two-tier market." Lending to developing countries has stagnated; what little increase there was in the first nine months was almost entirely the result of forced lending associated with rescheduling operations. The other side of the market is a strong appetite for lending to industrial countries combined with a growing liquidity in the banking system caused by lack of good lending opportunities.

For the first time in three years banks in the U.S. have begun to absorb excess liquidity from the international banking system. During the second quarter of last year net flows of *funds to* U.S. banks totalled $4.3bn; by the third quarter they had increased to $10.3bn.

Fund suppliers

Usually, U.S. banks act as suppliers of funds to the market. The turnround, according to the Bank for International Settlements, had little to do with the growing balance of payments deficit of the U.S. (thought to have reached more than $40bn last year compared with $11.2bn in 1982). Rather was it the result of the shortage of good lending opportunities elsewhere. Developing countries had become too risky, and credit demand in the industrial world too weak.

The decline in the oil price, which saw Opec countries notch up a balance of payments deficit of some $31bn last year compared with $16bn in 1981, might have been expected to raise the borrowing needs of oil-exporting countries. Yet as a group Opec nations increased their borrowing only slightly in the first nine months of last year. According to the Bank for International Settlements they absorbed $2.3bn in new bank loans, less than the $7.7bn borrowed in the corresponding period of 1982. Withdrawals of bank deposits by Opec nations have on the other hand been relatively high at $13bn, although this clearly had little impact on overall international bank liquidity.

The shortage of Opec funds was in part at least offset by new deposits from developing countries which managed to increase their holdings of cash with Western banks by $6.4bn during the first nine months of last year. The supply of funds to the market was further boosted by net interest payments from developing countries as well as an increase in deposits by some smaller developed countries such as Spain, while by the third quarter Opec deposits had themselves begun to rise again, increasing by $2.2bn. The overall effect, according to the Bank for International Settlements, was that banks in the main industrial countries that are traditionally net exporters of capital had begun to absorb it from the outside world.

"It is too early to say whether this is just a temporary phenomenon or whether it reflects a lasting recovery in the balance of payments position of the outside area countries," says the bank.

Yet the OECD is forecasting a further improvement in the balance of payments of borrowing countries this year. Non-oil developing countries are expected to record a further $5bn decline in their total deficit to $40bn, while the smaller industrial countries will register a deficit of only $3bn compared with $9.5bn last year. Opec countries will have a little changed deficit of $32bn, while the U.S. is expected to show a significant deterioration in its payments position with a deficit of over $80bn which will be partly offset in the aggregate picture by a much increased Japanese surplus of over $30bn.

Dynamic

Forecasts such as these have inevitable implications for the international capital markets. They suggest that the growth dynamic which came from the payments imbalances caused by the oil shocks of the 1970s may be running out of steam. Shortage of business is one reason why banks are now looking more closely at areas that only recently were taboo, such as Eastern Europe. It is also a reason why many banks are actively buying floating rate notes despite their low yield compared with bank credits.

Indeed U.S. banks which have been taking in deposits from the rest of the world are thought to be among the major buyers of such paper, alongside Japanese banks which are traditionally liquid and subjected to limits on medium-term lending imposed by their Ministry of Finance.

The problem is that holding floating rate notes is not particularly profitable for an international bank. Now that balance of payments trends suggest traditional bulk lending opportunities are diminishing, banks face the difficult task of devising new, and profitable, forms of business to keep the capital markets going.

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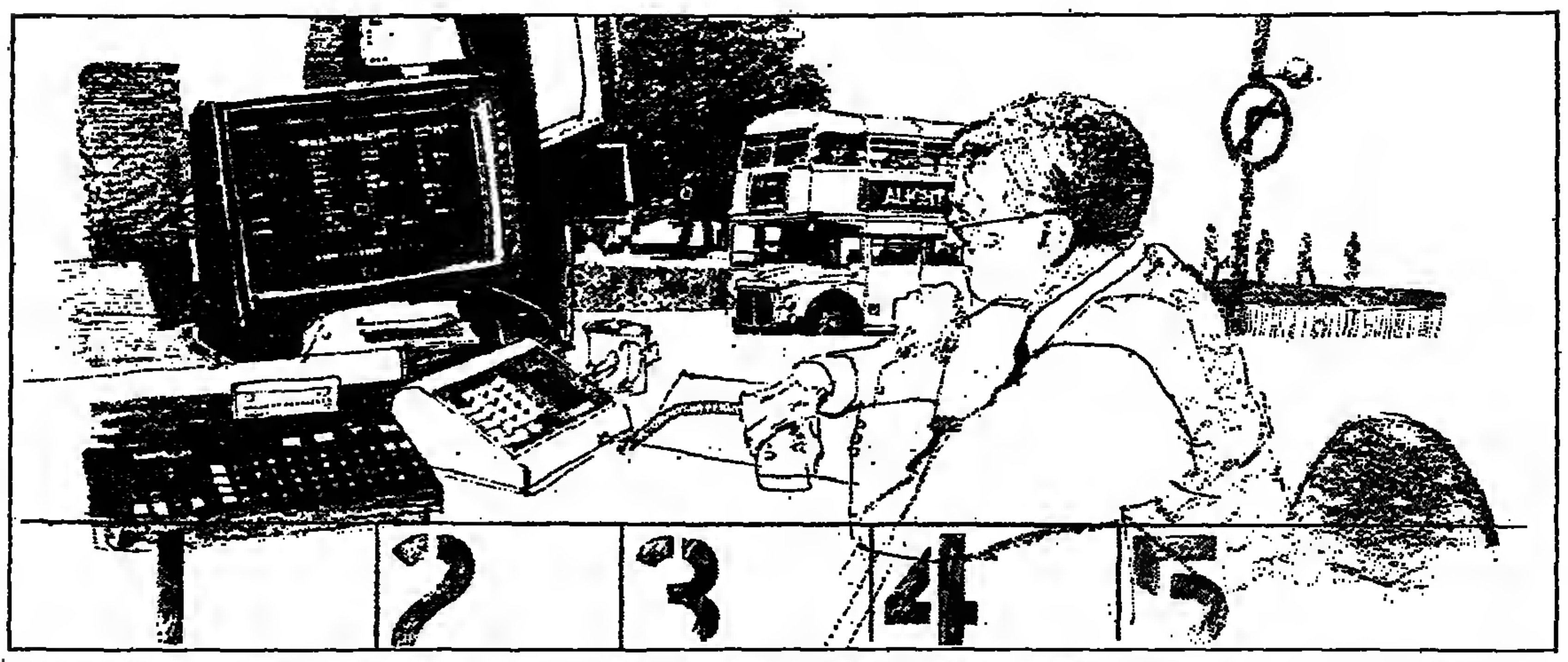

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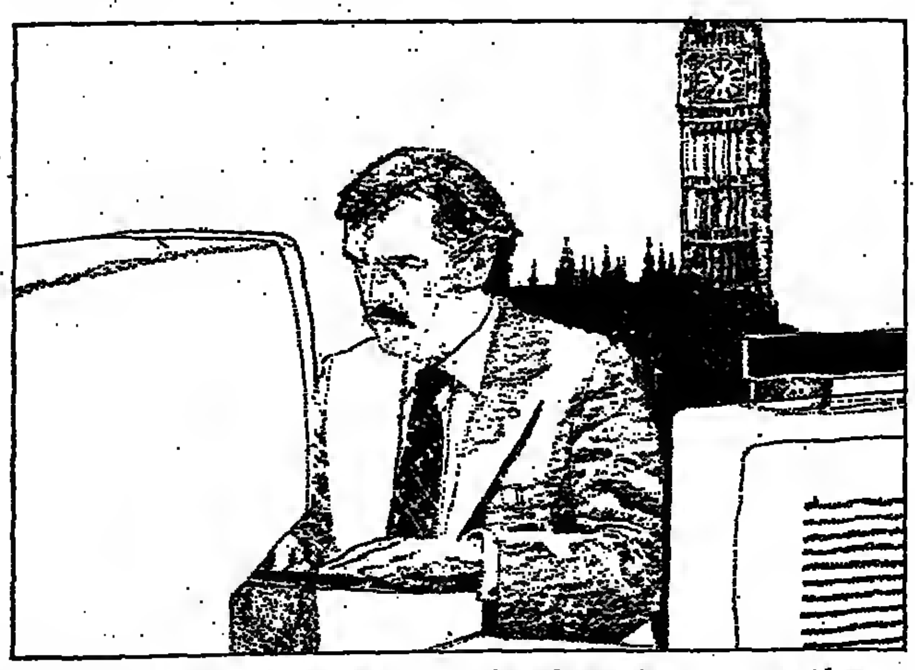

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Keeping the lenders better informed

THE INSTITUTE of International Finance is one of the only new organisations to be spawned by the debt crisis. Based in Washington its purpose is to keep the banking system better informed about the economies of the major borrowing countries.

Created last year the institute has 187 member banks of all sizes from 39 countries representing more than 80 per cent of global lending to the developing world. Its managing director is M Andre de Lattre, a former president of the French state financing agency Credit National who has also been involved in negotiating extra funds for IDA, the soft loan arm of the World Bank.

Since January of this year member banks have had "on-line" computer access to the major economic accounts of some 20 countries. The system is expected soon to cover 40 to 50 countries which are indebted to the banking community. For each country the information is provided on an 80-line table which covers detailed data on indebtedness, including short-term debt and payments arrears, as well as a wide range of macro-economic information.

The institute also intends to produce detailed economic reports on key borrowing countries and will be sending missions to some of them to establish direct contact with borrowers. In this way it hopes to facilitate lending decisions, particularly by smaller banks which lack the resources for in-depth analysis of borrower countries' economies.

It remains to be seen whether the institute will play a powerful role in influencing commercial bank policies towards international lending. This will in part depend on its relationship with its powerful neighbour, the International Monetary Fund, which has so far adopted a rather cautious approach to discussing member economies with commercial banks and their representatives.

Completion of Brazil package lifts sense of crisis

Third World debt

PETER MONTAGNON

THE COMPLETION in January of a $11bn debt rescue package for Brazil may come to be regarded as a turning point in the debt crisis that has plagued the developing world for nearly two years.

At least that it what senior international bankers and officials are hoping. The Brazilian package was put together against all the odds: it was the second time in a year that Brazil had turned to its reluctant bankers for help, and against a background of severe domestic recession its Congress proved reluctant to accept the harsh austerity demands of the International Moneeary Fund.

Now the package is complete the sense of acute crisis has lifted premitting both creditors and debtors alike to ponder some of the longer term problems left in its wake.

As the Governor of the Bank of England, Mr Robin Leigh-Pemberton, put it in a recent speech: "The day to day management of debt problems has become somewhat less difficult . . . We now, I suggest, have an opportunity and a responsibility to think more deeply about the longer term." Yet this is far from saying, as he did a year ago, that the crisis is over.

So far most of the rescue packages organised for debtor countries in trouble have had the immediate objective of keeping them afloat financially. The cornerstone has been an IMF adjustment programme, backed up by rescheduling and new loans from banks and sometimes goverpments as well. Initially bankers hoped that such packages would suffice until a combination of lower interest rates and economic growth in industrial countries floated the debtors gently away from the shoals of default.

Trade surplus

But what was initially perceived as basically a crisis of liquidity has now come to be viewed as a more fundamental problem. The debt overhang is simply so large that it will take many years before most of the afflicted countries can rebuild their creditworthiness. Meanwhile a way has to be found for them to allow their economies to grow while they continue to use up precious resources in servicing their debts.

Last year, according to Morgan Guaranty Trust, the seven major borrowers of Latin America notched up a trade surplus of about $30bn, but the shortage of new bank loans meant that this money had to be used to pay interest on foreign debt. For the first time since the oil price rises of the early 1970s borrower countries have begun to make net payments to their commercial bank creditors. The payments do not reduce their debt, but arise simply because banks are no longer lending enough to cover all the debtors' interest obligations.

According to Mr Tom Clausen, President of the World Bank, developing countries made net payments of $12bn to commercial banks last year. Two years earlier they had received net transfers of $16bn.

Worst still, the trade surplus that it being used to meet these payments has been achieved largely through cuts in imports. The seven major borrowers in Latin America last year held their imports to a level 42 per cent below what they had been in 1981. Lower imports mean lower growth, and unless a means can be found of financing some import revival the countries concerned face years

of economic stagnation with cuts in living standards leading to the risk of severe political and social tension.

As the debt crisis moves out of its acute phase more thought is now being given to this type of long-term problem. What is clear, however, is that the chances of radical intervention by creditor governments still seem slim indeed.

There is little political support in the industrialised world for grandiose schemes that effectively involve governments in buying the banks out of the problem by taking over their loans to developing countries. Instead, the basic approach is still a pragmatic one which involves adapting existing solutions for the longer term.

From the banks' point of view one of the most significant changes has been a willingness to accept a reduction of both interest margins and fees. At the same time the maturities on rescue packages have been lengthened to spread the burden of repayment well into the future.

The most dramatic example of this came with the $3.8bn credit launched for Mexico in late December. The loan bears a maturity of 10 years, four years longer than Mexico's previous $5bn loan and interest margins have been cut by up to a full percentage point. Since then both Chile and Peru have obtained similar, though less far-reaching concessions.

Another change has been an increased willingness of both banks and borrowers to consider the use of currencies other than the dollar. Credit Commercial de France made its contribution to the latest Brazilian jumbo loan in ECUs, the currency basket of the European Economic Community.

For the borrowers this offers a welcome opportunity to reduce total borrowing costs by diversification out of dollars; lenders which are not U.S. banks find their funding dependance on the eurodollar deposit is reduced.

There is, however, not much hope of a marked revival of international bank lending. Mr Jacques de Larosiere, Managing

Mr Robin Leigh-Pemberton: "We must think about the long term."

Director of the International Monetary Fund, calculates that bank lending to developing countries rose by only 7 per cent last year, "a marked, though necessary, slowdown from the unsustainable rate of growth in new bank lending—of about 20 per cent annually—prior to the crises of 1982."

To reduce their dependence on bank lending debtor countries are now being actively urged by western governments to open their doors to direct foreign investment. Unlike loans equity investments do not have to be repaid. Says Mr Leigh-Pemberton: "There are no remaining financial obligations if a project should fail. There is a foreign exchange cost to the country only when the investment is productive and profits are remitted abroad—and in these circumstances the project itself may well be generating or saving foreign exchange."

Foreign investment can involve a fresh flow of funds to the borrower nation. Or it can be used to reduce the existing overhang of debt. A bank may decide, for example, that it wants to cut its exposure to Brazil even at a loss. It sells its Brazilian loan at a discount to a multinational company wanting to invest in Brazil. The company then collects the cruzeiro equivalent of the loan from the borrower and uses the cheaply acquired local currency to fund its new investment.

There would, however, have to be an unprecedented revival in foreign investment to make any significant impact on the debt overhang. Like bank lending direct investment in developing countries has declined, according to the World Bank to $10bn in 1983 from $13bn in 1982 and $14bn in 1981. One hope is that the cumulative effect of more investment and lower debt service charges may begin to be felt as the debtor countries recover, especially if this is accompanied by an increase in lending by western governments to finance exports to the developing world.

But for this to happen trade volume needs to revive strongly. The key for developing countries now seems to lie in their ability to expand exports. The initial stages of adjustment involved a radical pruning of imports. If they can move on to higher exports their debt service ratios will improve and there would be more room to relax austerity with increased imports.

"Over the long run," says Morgan Guaranty Trust, "the only viable solution for Latin America lies in expanding exports so that debt servicing capabilities are enhanced, flight capital returns and economic growth is restored."

Export growth

This will require a more radical economic adjustment with the emphasis moving away from import substitution and towards more active export orientation. It will also involve the debtor countries in reassessing the development role of the state so that resources can be freed for the private sector, whose problems have frequently been neglected up to now.

Even on the most optimistic scenario this process will still take several years. Meanwhile banks will have little option but to stand by the debtors with continuing amounts of new money and the whole debt situation will remain vulnerable to sudden upsets and reversals.

On the macro-economic front the recovery in the western world could fizzle out; protectionism could dash hopes for higher exports; or interest rates could again move higher. Some individual debt problems such as those of Argentina and the Philippines also remain difficult and intractable.

Concludes Mr John Calverly, an economist with American Express International Banking Corporation: "The final stage will be when formal rescheduling is no longer required, with loans coming due being repaid normally and new loans for new purposes being contracted. This is not an impossible dream but it will require reasonably favourable world conditions and may take a considerable time."

INTERNATIONAL CAPITAL MARKETS V

Why all eyes are on the Fed

Outlook for interest rates

MARY ANN SIEGHART

A SURVEY of UK fund managers in December 1982 revealed an almost unanimous view that the dollar would depreciate in 1983. Instead, it followed a relentless upward trend, strengthening by 40 pfennigs against the D-mark.

Similarly, most people expected U.S. interest rates to fall last year as they had done during most of 1982. A discount rate cut was widely expected but never materialised and borrowers held back from the bond markets in the expectations that they would be able to finance more cheaply later in the year. In fact, U.S. rates were higher in December than they were at the start of 1983.

So what happened? The two events are obviously interrelated in that high real interest rates have helped to keep the dollar strong by attracting foreign investors to dollar securities.

Interest rates have remained high for two reasons. First, there is the huge Federal deficit, estimated to reach $180bn this year. The savings ratio in the U.S. has been low for some years, so the Government has to pay high real rates on its Treasury bonds to attract domestic as well as foreign investors.

High interest rates have also been a lynchpin of the Federal Reserve Board's monetary policy. The Administration is determined to reduce inflation and believes that the best way to do that is to rein in the growth of money supply. This is done by keeping interest rates high.

This was particularly important in 1983 when a surprisingly strong recovery looked as if it might fuel a renewed bout of inflation. All in all, there has been little leeway for the Fed to cut rates.

So dollar investors last year had the benefit of both high real interest rates and gains on their currency. But it was not just the returns on their investment that they found attractive. They also had confidence in the underlying prospects for the U.S. economy.

Moreover, the U.S. was increasingly seen as a safe haven in troubled times. In the past, investors have often flocked to buy gold when there were political upheavals, say, in the Middle East.

Last year, they bought the dollar instead. While gold topped $500 an ounce in February, it was down to well below $400 by the end of the year. By contrast, the dollar gained several pfennigs every time a world crisis loomed.

Part of the reason was the fall in inflation. Gold gives the investor no return at all, while dollar bonds were yielding about 7 per cent in real terms.

But market sentiment can change abruptly if confidence in the political and economic management of the U.S. falters. And once the tide is turned, investors are likely to take their profits while they can.

It looks as if this has started to happen. Since the beginning of the year, the dollar has weakened from a high of DM 2.85 to around DM 2.55, losing over half of last year's gains. Perhaps investors are looking more closely at the fundamentals of the U.S. economy and particularly at its balance of payments.

Only three years ago, the U.S. had a surplus of $5bn with a $40bn deficit on trade more than covered by large service income on its current account, but in the last quarter of 1983, the trade deficit topped $90bn at an annual rate, and is expected to be at least $100bn this year, resulting in a current account deficit of around $80bn (needing to be financed).

Cheap imports

The strength of the dollar is partly to blame. In real terms, it has appreciated by 30 per cent against the yen and 27 per cent against other currencies since 1981. This has made imports cheaper and U.S. goods less competitive abroad.

Another problem is the growth differential between the U.S. and many of its trading partners. While real GNP grew by 3.3 per cent in the U.S. last year, the average for Europe was 0.7 per cent and many developing countries saw their GNPs fall.

As a result, U.S. exports to Europe are 15 per cent below the levels they were three years ago, while to Latin America, they have fallen by about 40 per cent.

Though the deficit has helped to keep domestic inflation down by providing foreign competition for U.S. producers, it has also forced the U.S. to rely increasingly on inflows of foreign capital.

Mr Paul Volcker, chairman of the Fed, has already voiced fears about the U.S. as a net debtor nation, and if these capital inflows are reversed, the dollar could weaken substantially, which would make imports more expensive and therefore add to inflation.

However, the Fed is in a very tricky position. As it is worried about inflation, it may not want the dollar to depreciate. One solution, then, might be to raise interest rates and attract the capital back.

But this is not so easy. First, if investors are determined to desert the dollar, interest rates may have to rise by a substantial amount to lure them back.

Secondly, it faces problems at home, particularly in an election year. It is trying to foster investment, which is difficult in a climate of high rates. And it does not want to choke back the recovery of this year and the year after.

If rates rise too much, the present Administration may be charged with economic incompetence which could pave the way for a Democrat to be returned to the White House, boding ill for lower inflationary expectations.

What is more, the Fed will also have to face the wrath of other countries. Part of the reason for the slow recovery of European countries is that they too have had to keep their own real interest rates high in order to allow their currencies to compete against the dollar.

Monetary and fiscal policy in many of these countries has therefore been tight, choking back their incipient recoveries.

But the debtor members of the Less Developed Countries, which already face difficulties in meeting the guidelines set by the International Monetary Fund, could suffer most. For the 21 main LDC borrowers, about two-thirds of their external debt is pegged to floating rates and nearly 80 per cent of that is in dollars.

It seems that the best solution for everybody is a lower dollar and lower U.S. interest rates. Whether the Fed would be prepared to contemplate the resulting inflation in such an important political year is quite another matter.

Lenders look to their liabilities

THE LDC debt crisis has forced lending banks to think not just about their assets but about their liabilities too. Because reschedulings have reduced the flexibility under which banks usually operate they have been forced to seek methods of funding which are more reliable than borrowing in the volatile interbank market.

This in turn has changed the composition of both the Eurobond and the Certificate of Deposit (CD) markets.

Lending in the syndicated loan market is usually quite a flexible process for banks—if they do not want to refinance a borrower they can just say so. But reschedulings to countries in trouble give the lender banks very little choice. They therefore have to be sure about where the money for that lending is going to come from and at what rate. For that sort of borrowing the interbank market is not perceived as reliable enough.

So the banks have concentrated on three other sources of medium- and long-term floating rate finance which, while they might be a little more expensive than the interbank market, carry a lot less risk.

The Eurobond market provides two of these sources through fixed-rate bonds tied to interest rate swaps and the direct issuance of floating rate notes.

Funding the banks

MARY ANN SIEGHART

Banks issued a huge number of fixed-rate Eurodollar bonds last year, almost all of which were linked to interest rate swaps. Salomon Brothers estimates that at least $10bn of such swaps were arranged in 1983.

The idea is to exploit the comparative advantage that each of the two parties to the swap enjoy in their respective markets. For instance, in the fixed-rate Eurodollar bond market the "difference" in coupon between bonds issued by high- and low-rated borrowers can be as much as 200 or 300 basis points (2 or 3 per cent). Many borrowers could not tap the market at any price because their credit rating is unt high enough.

In the market for floating rate funds, by contrast, the differential is likely to be no more than 100 basis points, or 1 per cent. It is the gap between these two spreads that enables both parties to the swap to save money.

What usually happens is that a bank will issue a fixed-rate bond, while a counterparty—say a BBB-rated corporation—will raise the same amount of money at a floating rate.

Each will keep its own proceeds but will then service each other's interest payments. So far, though, the counterparty is the only one with the advantage, for it has fixed-rate money at a rate well below what it would otherwise have had to pay. So it shares its gains with the bank by paying a small proportion of the floating rate interest as well.

In a typical example the bank might end up with an all-in cost of funds of 1 per cent under the London interbank offered rate (Libor)—less than it would have to pay on a floating rate note—while the corporation

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Increasing reliance on innovation as market declines

Eurodollar bonds

MARY ANN SIEGHART

IT HAS been e patchy year for the Eurodollar bond market. Though new issue volume was only sligbtly lower than in 1982 —a bumpar year—there were several peaks and troughs on the way and bankers bad to rely increasingly on innovation to tempt investors back to the market.

New issoe managers had two problems to contend with: interest rates wbich refused to fall and booming worldwide equity markets competing for investors' fonds.

Just under $35m worth of Eurodollar bonds were issued last year, compered with $39m in 1982. As a proportion of international bond issues, the dollar sector acconnted for 55 per cent (1982: 64 per cent).

The volume of new straight bonds feil the most—from $26.7bn in 1982 to just $19bn. This was partly due to weak market demand, notably in the summer months, but there was also a reluctance on the part of borrowers to issue bonds.

The main absentees were the U.S. corporations, the favourites of Eurobond investors. Some were loath to borrow because they thougbt interest rates had further to fall. Others raised money instead in the equity market. And the rest felt they did not need the funds anyway. Rising profits and more generous depreciation regulations helped to make companies casb-rich.

'Bells and whistles'

Most of these corporate treasurers read the market wrong. Coupons pipped just under 10 per cent at the beginning of 1983, and reached peaks of over 12½ per cent in August. By the end of the year, coupons on new issues were around 12 per cent.

Yet despite this uptick in rates, total new issue volume was not that much down on the yeer before. One factor was that rates did not move steadily upwards, and every time there was a slight movement downwards, new issue managers lost no time in launching bonds. Another is that floating rate notes took up a larger percentage of dollar new issues.

But probably the most important factor in *sustaining* the momentum was the preponderance of "bells and whistles" attached to bonds, designed to lure investors back to the markets.

The first two crazes of the year—partly-paid and zero-conpon bonds—came and went in the first two months as bankers tried to extract the last stirrings of interest out of an already saturated market.

But once an investor has decided that he does not want to be in bonds anyway, this sort of sweetener is unlikely to work. So instead, bankers pondered the problem from the other side. If investors were deserting bonds for equity markets, why not sell them bonds with an equity content? That way, they could combine the certainty of a high real income from the bond with a chance to take a punt on the booming equity markets.

Thus, warrant fever was born. The first bond-with-warrants deals—for Hoechst and Siemens—came out in February, but true eupboria struck tha market in May.

Issue for borrowers like Deutsche Bank, Credit Suisse and Degussa were launched on coupons of around 7 per cent (compared with prevailing rates of around 11½ per cent) and promtly soared to prices as high as 124 before stabilising at around 110.

At one stage the premiums on the warrants (the difference between the current share price and the much higher price at whicb investors would break even by exercising their warrant) were close to 50 per cent. This meant that the sbare price would have to he half as high again before warrant-bolders could make money.

Threat posed by U.S. tax move

Apart from the fears of rising interest rates and a weakening dollar, the Enrodollar bond market has another shadow over it, wbich though it has loomed several times before, may become more concrete in 1984.

That shadow is the possibility of U.S. withholding tax being repealed on domestic securities bought by foreign investors. Instead of having 30 per cent of their interest payments deducted at sonrce, investors would receive the income gross.

The so-called "Gibbons-Conable" bill, currently before Congress, aims to repeal withholding tax, giving foreign investors access to the U.S. domestic market on more or less the same terms that they already enjoy in the Eurodollar bond market.

Because of the tax-free and bearer nature of Eurobonds U.S. corporate borrowers can often get away with paying a lower coupon on their bonds than the U.S. Treasury itself bas to pay in New York. If withholding tax disappeared, this advantage would probably vanish because U.S. corporations would be competing directly with the Treasury for funds.

The repeal could also be bad news for European investment banks. There is a fear that a lot of business would move back to New York with tax-free bonds issued directly from there. This would favour the U.S. banks which already have a strong presence there.

As a result, banks like Credit Suisse First Boston are pressing for an alternative Bill, supported by Congressman Doug Barnard, which would simply allow U.S. borrowers to tap the Eurobond market without having to use the *circuitous* route of setting up a Netherlands Antilles financing subsidiary.

Only then did the market realise it was being taken for a ride. Everyone tried to take their profits at the same time and prices of many of the warrant deals fell dramatically. Deutscbe Bank's issue, for instance, plunged from a price of 120 to 104 in one day.

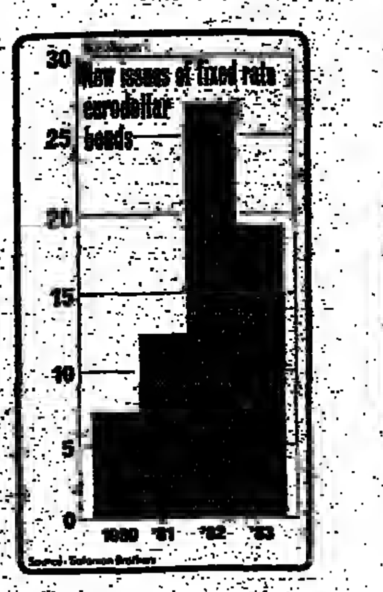
One of the reasons may have been that new issue managers had just started to price new deels off the back of prevailing market levels. Imperial Chemical Industries' ill-fated deal, for instance, asked investors to stomacb a 45 per cent warrant premium. They rebelled: the price fell from its odd 123 issue price to 111 in one week.

The next craze to hit the Eurodollar bond market was the "ET"—while the rest of the world was raving about a bug-eyed extra-tarrestial monster, the bond market was revelling in its new-found EuroTreasury warrant.

Pioneering the idea was tha fiedgling Quadrex Securities. It tried to sell 200,000 warrants on bebalf of the U.S. conglomerate Transamerica, each of which entitled the bolder to buy a 10⅜ per cent U.S. Treasury bond due 2012. The warrants had to be exercised within a year and the strike price was fixed at 92.

Despite Quadrex taking out full-page advertisements in three national newspapers the day the deal was launched, not enough people were prepared to buy the warrants even at their minimum tender price of $49.50 and by lunchtime the issue had to be cancelled.

Quadrex's problem lay not in the idea bnt in the pricing. It was asking investors to pay a premium of 11 per cent over the prevailing price of the Treasury bond — a premium which was considered by most people to be too high.



Or, to put it another way, the yield on the underlying bond would have had to drop by 128 basis points (1.28 per cent) within the year for the investor to break even.

So other issuing houses used the idea with a more realistic pricing. Within two days, both Merrill Lynch and Salomon Brothers had launched their own ET issues with premiums more in line with market sentiment. In the next six weeks, these were followed by similar deals launched by Drexel/Paribas (Suisse), First Boston and Paribas. Merrill Lynch Royal Securities also adapted the idea for the Canadian dollar market.

But like many market crazes, this one eventually suffered from over-supply. The idea may have been intellectually appealing, but too few investors were prepared to buy the warrants.

Professionals in the market and sophisticated investors could play around in the Chicago options and futures markets themselves without having to pay Merrill or Salomon to do it for them. Many other investors were wary of the instruments — possibly they did not fully understand them. And there were not enough in between to make the ETs truly marketable.

Competition

When investment bankers were not busy devising new formulas to attract investors to their bonds, they were engaged in fierce competition with other banks.

Many borrowers threw their mandates open to competitive bidding. And unlike the syndicated loan market, where banks tend to form into groups to bid for a mandate, most Eurobond bids come from individual houses.

This leads to several problems. First, the borrower may have as many as 30 offers to sort through. But worse, a bank which has bid for a mandate and failed to win it is unlikely to accept an invitation to co-manage the bond from the bank that has won. Partly this is to save face, but it is also hard for a bank to join a deal on terms tighter than it proposed itself.

This bodes ill for the bond's performance in the market. It is likely to be very aggressively priced if the winning terms were the tightest offered. And on top of that, the houses with the best placing power which also bid for the mandates are unlikely to be in the eventual deal.

Competitive bidding often made it difficult to make money on managing fixed-rate bonds last year. It also brought down the margins on syndicated loans and floating rate notes. The latter, in particular, were much more lucrative business for lead- and co-managers a few months ago than they are now.

So provided the yield curve remains positive and dealers can finance their bond holdings at a lower rate than the coupon interest they receive, secondary market trading may prove more lucrative than primary market activity this year.

But dealers will have to read the market well. Rarely has there been such uncertainty about the direction of U.S. interest rates. Some people are distinctly bearish now, saying that the Federal Reserve Board will have to put the brakes on U.S. money growth to ensure that the recovery does not fuel inflation. Others believe that the recovery is slowing down and that the Fed would not let rates rise much in an election year.

What is just as worrying for the Eurodollar bond market is the direction of the dollar. It has weakened substantially so far this year, leading many institutional investors to liquidate their dollar holdings and move instead into currencies like Deutsche marks or sterling.

If the dollar continues to slide, Eurodllar bonds may account for an even smaller proportion of international bond issues than they did last year.

Funding the banks

CONTINUED FROM PREVIOUS PAGE

pays the fixed-rate interest of, say, 12 per cent plus an additional ⅛ per cent, again much less than it would have had to pay had it raised money on its own behalf.

But like all arbitrages the gains are eroded as more people take advantage of them. Banks had to pay steadily rising coupons on their bonds last year because they were making such beavy demands on the market.

The competition hotted up too for tha lucrative swap fees paid to the banks which arrange the deals and often taka on the risk of either party reneging on its obligations. So these fees were squeezed and swaps became rather more difficult to arrange.

The ultimate losers, though, have probably been the less sophisticated investors and tha co-managers of swap-related bond issues.

To accommodate the terms of a swap the fixed-rate bond has often been too aggressively priced for the market. Unwary investors, or those who have their funds managed on a discretionary basis, have therefore ended up with bonds which are bad value.

The lead manager of the bond can afford to have pricing which is too tight because even if he loses money placing the bonds be is cushioned by the fee he receives for arranging the swap. But co-managers get no such fee and frequently lose money. Obviously they can refuse the invitation to join tha *management group* but they then run the risk of not being invited next time round.

All these factors have combined to make the interest rate swap less attractive than it used to be.

The method also relies heavily on how healthy the fixed-rate Eurodollar bond market is. Last November and December the market was virtually closed to borrowers. So banks turned instead to the floating rate note market, where demand was very strong.

The margin a borrower has to pay over Libor on an FRN has narrowed considerably since the middle of last year. Then the typical spread was ¼ per cent; recently banks have issued FRNs paying no margin over Libor at all (though the all-in cost is slightly higher because fees have to be paid to managers). This makes the FRN market a reasonable alternative to doing an interest rate swap.

Attaching warrants or other gimmicks to a floater can make the all-in cost even less — sometimes under Libor. For instance, Dresdner Bank issued an FRN with warrants to buy its equity and Manufacturers Hanover launched a fixed-rate bond convertible to a floater paying ¼ per cent under three-month Libor. The coupon on the fixed-rate bond was well below market rates too.

TOP COMMERCIAL BANK BORROWERS IN THE INTERNATIONAL BOND MARKETS 1983

	total raised ($m)
Credit Lyonnais	712
Banque Nationale de Paris	701
Dresdner Bank	598
Deutsche Bank	543
Barclays Bank	494
Long Term Credit Bank of Japan	458
Nippon Credit	443
Citicorp	384
Bank of Tokyo	375
Industrial Bank of Japan	371
Credit Agricole	350
Credit Suisse	300
Fuji Bank	300
Security Pacific	300

Source: Salomon Brothers

The CD market is the third source of medium and long-term floating rate funds. CDs are short-term bank deposits which are also tradable. Thare is a broad secondary market in them, so they appeal to investors like commercial banks, corporations and central banks as liquid cash instruments.

Tha alternative to issuing a straight CD is to set up an *"issuance facility"* under which other banks agree to buy a certain number of the borrower's CDs at any time during the facility's life. Spreads on CDs can vary from ⅛ per cent over Libor to ⅛ per cent under. Because each certificate's life is only six months the rates are generally lower than on FRNs.

However, the risk is slightly greater. In normal circumstances the issuer can guarantee himself, say, five or seven-year money by arranging a facility of that length.

But if serious problems arose, like a banking crisis, the roll-over market could be threatened and the issuer would not be sure of getting his money. With an FRN, by contrast, he gets his funds up front for the life of the bond and does not have to repay them until the end.

The increase in the issuance of CDs and FRNs by banks shows how aware they have become of the importance of liability as well as asset management. The debt crisis has taught them to watch, not just to whom they lend but also where they borrow.

INTERNATIONAL CAPITAL MARKETS VII

Mr Stephen Brisby, a director of Schroders, the London merchant bank: "Japanese banks are keen to get into the securities business."

Mr M. Kurokawa, president of Nomura Securities, predicts a "widening out" of the way Japanese companies fund themselves internationally

System more accessible to outsiders

The Japanese connection

DAVID LASCELLES

APRIL 1 may not be the most auspicious day to initiate change. But this year it is supposed to be a big date in the Japanese financial calendar.

On that day, the Tokyo Government — under pressure from the U.S. — is to embark on the next stage of its gradual liberalisation of the financial markets. As so often in Japan, the changes may be more apparent than real. Even so, there is no mistaking the basic trend: Japanese capital markets are becoming more accessible to outsiders, and Japanese institutions are much more aggressive in markets overseas.

Several things are supposed to happen:

- Japanese borrowers will be allowed to tap the Euro-yen bond market for the first time.
- Forward foreign exchange trading in Tokyo will be freed from the "real demand" rule which says that a genuine commercial transaction must underlie each trade.
- Banks will be allowed to raise more money on the Tokyo money markets through sales of certificates of deposit, and access to the Samurai bond market will be eased slightly.

These reforms belong to a much larger package of measures that Japan agreed to last year at the Reagan-Nakasone summit as a gesture to head off mounting anger at its huge trade surpluses. The ostensible aim was to open up the Japanese finance industry to the outside world, and permit the yen to play a role that matches Japan's international importance.

Although the Reagan Administration hailed the package as a major triumph, there was less to it than met the eye. For one thing, Japan had already launched some reforms, largely because its regulation-cramped capital markets were obviously not up to the job of financing the Government's burgeoning budget deficits. For another, it will probably do less to correct the yen's weakness against the dollar (Washington's biggest worry) than a drop in U.S. interest rates.

The extent to which the all-powerful Ministry of Finance is prepared to give the yen a freer rein almost certainly depends more on the country's financial fortunes than jawboning from Washington. But at least Japan accepts the need for change and, as a ministry official said: "That's a revolution."

Change

Mr M Kurokawa, president and managing director of Nomura International, the European arm of the giant Tokyo investment house which is keen to see change for obvious commercial reasons, admitted at a recent FT conference that Japan's ethics were "enigmatic." But he predicted "steady and controlled growth" in the yen bond and syndicated loan markets, and a "widening out" of the way Japanese companies fund themselves internationally.

Japan's handling of the Euro-yen bond question is typical of its approach. Tokyo has never been very enthusiastic about offshore money — which government is not? And since this market got started in 1977 there have only been 26 issues totalling Y400bn ($1.7bn). Borrowers have been restricted to top quality official institutions outside Japan.

From April 1 Japanese companies will be able to use the market for the first time. But though "guidelines" have been drawn up, these are rather academic since the Ministry of Finance's tax bureau has refused to lift withholding tax on interest payments, so the appeal to foreign investors will be minimal. The brain-teaser is whether the tax bureau is acting out of principle or front-lining for the ministry as a whole.

The block will not be total, of course. Japanese investment bankers predict that there will be a market for things like convertible issues which carry loan coupons where the tax "bite" is smaller. Japanese corporations have shown tremendous enthusiasm for convertible issues in other currencies in the past, notably Swiss francs. Borrowers will continue to issue bonds denominated in other currencies but designed to perform as if they were yen bonds.

The abolition of the "real demand" rule should also make it easier to put together sophisticated currency-based deals from Tokyo, though this has always been possible for anyone dealing in yen from anywhere else.

There is no question that the borrowing demand is there. Last year, Japanese corporations raised nearly 50 per cent of their financing abroad, partly because terms were more attractive, but also to escape the restrictions of the domestic market, like the requirement that they put up collateral against bond issues.

Rules

Japan is also easing the rules for foreign borrowers of yen, whose numbers could pick up as the currency strengthens. (The volume of yen-syndicated loans for foreign borrowers has been unchanged at about Y1 trillion for the last two years.) The Government is happy to see more yen-denominated loans, and entry qualifications for the Samurai bond market (the domestic market for foreign borrowers) are being widened too.

But the Japanese are more likely to feature as investors in the Euromarkets than as issuers. With their vast capital surpluses they have been flooding foreign markets, particularly bonds. According to the Ministry of Finance, Japanese net purchases of foreign bonds in the first six months of last year equalled the total amount bought in 1982, about Y1.4 trillion ($6.25bn).

Japanese banks have shown a voracious appetite for floating rate notes and have become the mainstay of that booming market, though this is also due to the authorities allowing banks to fund themselves more freely, and cheaply, when buying securities than when making loans. "The first thing you ask yourself when you put together a deal is what the Japanese will buy," says a London dealer.

The recent weakening of the dollar, disillusionment with the syndicated loan business, and signs of saturation in the FRN market do, however, raise questions about where the Japanese go next. And since they invariably move in droves their choice could have a big market impact.

Mr Nobuyuki Takai, deputy general manager of the London branch of Sumitomo Bank, for example, says his bank did not meet its FRN purchase targets in the past few months because the margins were too thin, and is now casting around for new business.

The Japanese are obviously keen on the U.S. Fuji Bank and Mitsubishi Bank have recently splashed out hundreds of millions of dollars buying banks there. By European standards, they are latecomers, but they make up for that in size; Japanese banks now have the biggest foreign share of the California market. South East Asia, which they neglected even though it was on their doorstep, is very much in favour.

But the best indicator of things to come may well be Sumitomo's recent $144m acquisition of a controlling stake in Gotthard Bank of Lugano, the first European purchase by a Japanese bank. The deal was clearly designed to boost Sumitomo's presence in investment banking and enable it to put together securities-based deals rather than just loans. Gotthard is also strong in investment management — another field the Japanese have their eye on.

Mr Stephen Brisby, a director at Schroders, the London merchant bank which initiated the deal, believes it is part of a trend. "Japanese banks are very keen to get into the securities business," he says.

Rapid rise to prominence

Floating rate notes

MARY ANN SIEGHART

ONE OF the outstanding features of 1983 in the Eurodollar bond markets was the increase in the number of floating rate notes launched. FRNs accounted for 40 per cent of all new Eurodollar bond issues last year, compared with 29 per cent in 1982.

In periods when interest rates are rising, it makes more sense to buy a floating rate note than to lock into a fixed-rate bond whose price is likely to fall. But that was not the only factor that brought FRNs into prominence last year.

Last year was the year in which floaters began seriously to challenge the role of syndicated loans, both for issuers and investors. Borrowers like Sweden, the European Economic Community, Denmark, Ireland, Belgium and many French state entities discovered that they could raise money on cheaper terms and for a longer maturity in the FRN market. Moreover, they could even retire existing debt early and refinance it more cheaply by issuing floaters.

Since these traditional borrowers were moving away from the Eurocredit market, the traditional lenders — commercial banks — had to follow suit. Because of the dearth of good borrowers left in the loan market, banks were forced to buy FRNs instead to maintain the asset side of their balance sheets.

The advantage to the banks is that unlike most loans, FRNs are eminently marketable. The turnover of the "jumbo" floaters launched last year has been remarkable—according to figures from Euroclear, the EEC $1.8bn and the Sweden $1.2bn issues were among the most actively traded Eurobonds of last year.

This has allowed trading spreads to narrow to 0.10 or even 0.05 per cent, making floaters a good depositary for fund managers' and companies' spare cash.

Because of the liquidity advantage, banks have had to be content with much lower returns than they would get on syndicated loans.

The surge in demand for floating rate notes pushed their new issue volume up to nearly $14bn last year, according to figures produced by Salomon Brothers in New York.

The first two months of this year saw even greater volume. Just over $7bn worth of floaters were launched, with nearly $2bn in just one week of February. This amounts to twice the volume of fixed-rate new issues so far this year.

Despite the huge leap in supply, demand was still strong enough to allow spreads to narrow. While Sweden had to pay $\frac{1}{4}$ per cent over Libor for its bond in the first half of last year, the typical margin narrowed to $\frac{1}{8}$ or $\frac{1}{16}$ per cent over Libor towards the end of 1983, and some bonds were being launched with no spread over Libor at all in January and February of this year.

Stretched

The World Bank even issued a floater linked to U.S. Treasury bills which yielded about 0.30 per cent *less* than Libor. However, many bankers feel that the market for such low-yielding assets is pretty limited and that the experiments may well not be repeated.

Maturities, too, have been stretched almost to their limit. The life of an average floater used to be around 10 years. But with the increased liquidity, issuing houses claim that the final maturity has become much less important.

Many bonds are now issued with lives of 15 to 20 years, but the final test came when Sweden tapped the market with a 40-year floater which had no early redemption options for investors. Like the World Bank issue, this was perceived as a one-off as investor demand was limited.

The problem is that—like many Eurobond crazes—this one seems to have gone a bit too far. By the end of February, it was clear that there were too many issues overhanging the market and that the narrowing of spreads and lengthening of maturities had overreached themselves. That is not to say that conditions will revert to those more common at the beginning of last year, but there is certainly room for some readjustment.

Such readjustment has already begun to happen. Prices of seasoned FRNs started to slide halfway through February to bring spreads up to more realistic levels. And new issues are starting to be launched on more generous terms.

There is a fear that demand will drop off after the end of this month. Japanese banks have been heavy buyers of FRNs, using them to boost the asset side of their balance sheets for the financial year-end on March 31.

If they have borrowed short-term money to fund the purchases of these floaters, they may want to sell the FRNs off rather than renew the borrowings.

For the rest of this year, it will be interesting to see how the balance of floating rate management business is split between commercial and investment banks.

Last year, for instance, the volume of syndicated loan business—traditionally arranged by commercial banks — dropped dramatically to be replaced, at least in part, by FRNs led by investment banks. Credit Suisse First Boston led nearly a third of the FRN new issue volume, followed by Merrill Lynch in second place.

The rivalry between those two is intense. To make matters worse, a team of ten bankers from CSFB defected to Merrill in January, including Scandinavian specialist Caleb Watts. The next Swedish mandate was promptly won by Merrill.

Despite that, however, many bankers feel that CSFB has not been seriously threatened in its position at the head of the league tables.

It is noticeable that the commercial banks are now trying to get involved in FRN business too. Having decided in 1982 that it was safer to make money on fee-related business rather earning margins on risky lending, they now feel that they cannot sit back and let themselves be ousted by the investment banks. Bank of America, Citicorp, Manufacturers Hanover and Bankers Trust, for instance, have all led FRN issues recently.

Investment bankers may now try to get involved on the loan side. There has already been a noticeable blurring of the distinction between FRNs and credits. Sub-participation in loans is on the increase, giving loans a limited secondary market. The issuers of FRNs are finding that the people lending them money are similar to those who last year would have participated in a loan to them.

Now both investment and commercial bankers are trying to come up with products that blur the distinction still further. The idea is to combine the marketability of an FRN with the higher spreads available on credits.

Possibilities include regular tender panels at which investors can either bid for paper at a price they choose or sell the paper back to the lead manager and his underwriters.

Bankers have also talked about the idea of packaging loans as securities—the way mortgages are treated in the U.S.—with the possibility of taking them off banks' balance sheets.

Meanwhile, the shortage of lending opportunities in the loan market means that banks which are flush with cash should still want to buy floating rate notes. This year's uncertainty about the direction of interest rates should ensure that investor demand remains healthy.

New issue volume high despite ties with U.S.

D-Mark bonds

MARY ANN SIEGHART

THE DEUTSCHE-MARK Eurobond and foreign bond market has found itself annoyingly dependent on the vagaries of the U.S. domestic bond market over the past year. It is only in the past couple of months—with a strengthening D-mark—that a decoupling of tha two markets has begun.

There are two major influences on the performance of D-mark bonds—the mark-dollar exchange rate and movements in prices and rates on the New York market.

The latter is particularly important when the D-mark is weak against the dollar, as was the case for most of last year. Deutsche-mark bond dealers, like their Eurodollar counterparts, watched the opening of the New York bond market anxiously each afternoon and marked their prices up or down accordingly.

This meant that in periods of rising dollar rates D-mark as well as Eurodollar bonds slid in price and new issues were difficult to absorb. In the summer of last year, for instance, the new issue calendar became *far too heavy and a* three-week gap was needed for the overhang to disappear.

Over the third quarter of 1983 only 20 issues were launched, compared with 40 in the second quarter. Not until the beginning of November was the market healthy enough for the monthly calendars to total more than DM 1 bn again.

But despite the occasional brakes put on the market by events in the U.S., total new issue volume for 1983 was up from DM 12.7bn to DM15.9bn. The proportion of D-mark bonds in all international bond issues rose too — from 7.1 per cent to 8.5 per cent. The D-mark market is still in third place in terms of new issue volume behind dollars and Swiss francs.

The clear trend of 1982 towards lower interest rates was not repeated last year. *Coupons on DM bonds* were about 1 per cent higher at the end of the year than in January but there were enough peaks and troughs on the way for new issue windows to be opened.

What the German market badly needed was a reversal in the flows of capital into the dollar. This indeed started to happen halfway through the year and since the autumn, foreign investment in D-mark securities has overtaken German investment in foreign securities.

In terms of fundamentals this makes sense. Germany now has positive current account balance it has reduced its public spending and inflation is around 3 per cent. By contrast, the U.S. current account and budget deficits are soaring.

The flows back into the D-mark revitalised the market this year. Secondary market prices rose steadily throughout January and February, bringing average yields down below 8 per cent.

The general level of coupons on new issues has fallen too but the range of coupons has widened. In the last week in January, for instance, the Inter-American Development Bank—a triple-A-rated borrower—had to pay 8½ per cent on a seven-year bond, while Pepsico—a double-A U.S. corporation—got away with just 7½ per cent for 10 years.

This pointed to a particularly welcome development — the Swiss investors were back in the Deutsche Mark market. The Swiss are notorious for being prepared to sacrifice yield for the lure of a household name and companies like Pepsico, Baxter Travenol and Sterling *Drug took full advantage of this.*

Because they were paying over 1 per cent less than the German Government itself they bought government bonds and used them to service their own interest and principal repayment, making a useful profit for thamselves on the way.

This process, called instantaneous defeasance, was designed to have an added benefit. Under defeasance rules in the U.S. — intended to apply to companies wanting to retire their existing debt early — the process allows the whole transaction to be taken off the company's balance sheet. So Pepsico, for instance, would have made a DM 1.75m profit a year with no adverse *implications for its gearing.*

But almost as soon as the craze started, Deutsche Mark defeasance was knocked firmly on the head. The Financial Accounting Standards Board of the U.S. issued a bulletin in February saying that these transactions were not within the spirit of tha original defeasance ruling.

Both tha liability (the D-mark bond issue) and the asset (tha German Government bonds) will now have to appear on companies' balance sheets.

At the moment though, there seems to be very little demand constraint on the volume of new issues. The *January-February* calendar scheduled DM 2.7bn in five weeks and the latest March-April one plans DM 2.03bn in the same amount of time. Still tha *bonds* have been trading at small discounts, well within their selling concessions.

For the time being at least bankers expect this buoyancy to continue. If the dollar stays weak investors should move into D-marks and, to a lesser extent, sterling and yen. Maybe for a few months the German bond market will be able to decoupla itself altogether from the doom and gloom in New York.

Foreign borrowing increased

Guilder bonds

PETER MONTAGNON

LAST YEAR was a record one for the Dutch bond market with total new issue volume rising to Fl 30.15bn from Fl 23.7bn in 1982.

A large part of the new offtake was absorbed by the Dutch state which raised Fl 23.6bn, but Holland's growing balance of payments surplus and weak credit demand at home created room for a substantial increase in borrowing by foreigners.

Foreign issues in the domestic market last year accounted for Fl 5bn of the new issue volume compared with only Fl 2.5bn in 1982. To this must be added new issues of Euroguilder bonds, which bankers in Amsterdam reckon rose to Fl 1.6bn from about Fl 1.1bn a year earlier.

Despite the large requirements of the Dutch Government there was little sign of other borrowers being crowded out as demand for guilder investments brought rates sharply lower.

Yields on ten-year government bonds touched a low point of 4.5 per cent in March, according to Morgan Guaranty Trust, although by the end of the year they were a good percentage point higher.

For foreign borrowers the coupon differential with the D-Mark sector has been reduced significantly. Normally guilder bonds carry a premium over those in the German currency which has been as high as 2½ per cent. In February, however, the World Bank borrowed guilders at a coupon of 8½ per cent, only ½ point more than it was paying at the same time in the D-Mark market.

Two factors have combined to produce buoyant conditions in the Dutch capital market. Last year the savings rate was particularly strong, while the balance of payments was in healthy surplus, estimated by bankers in Amsterdam at around Fl 12bn. This year the surplus could increase to almost Fl 20bn, some forecasters believe.

That would mean that buoyant conditions in the bond market should continue, allowing for a continued strong new issue volume in 1984. Inhibiting factors remain, however, such as the need for some premium to be maintained vis-a-vis the D-Mark sector as well as the general constraint on interest rates emanating from the U.S.

Although there is not much risk of the guilder falling sharply against the D-Mark because of the high Dutch balance of payments surplus, most bankers believe that some premium over D-Mark issues is needed to keep investors interested in the Dutch market.

Foreign issues are placed predominantly in Benelux countries and Switzerland, where investors would be acutely aware of any loss of advantage over the German market.

Both the Dutch and the German capital markets have recently benefited from foreign buying as investors sought to diversify out of the U.S. currency.

Another record year

Swiss Franc bonds

PETER MONTAGNON

THE SWISS FRANC capital market had another record year in 1983 with total new issues of foreign bonds and private placements reaching nearly SwFr 31bn compared with only SwFr 27.7bn in 1982.

This volume was achieved despite much movement in interest rates. In fact yields on long term Swiss government bonds which started the year at 4.23 per cent finished at higher at 4.56 per cent after rising to a peak of 4.75 per cent in September. At the end of February the bonds were still yielding about 4.56 per cent.

At these levels Swiss interest rates are still, however, very high in real terms. Inflation in January was 2.7 per cent on a year-on-year basis, while for 1983 it was only 2.1 per cent, the second lowest in the industrialised world after Japan.

Coupled with Switzerland's strong current account balance of payments surplus this meant that the currency was less susceptible than others to weakness caused by the high U.S. interest rates.

In fact the D-Mark slipped during the year to an average monthly level of just under SwFr 0.80 in December from well over SwFr 0.84 a year earlier, though it has since recovered as the D-Mark has gathered strength generally.

German bankers argued that the weakness of their currency against the Swiss Franc reflects the latter currency's continuing attraction as a haven for capital flight funds. This may partly explain its relative strength last year, but the fact remains that demand for Swiss Franc denominated investments allowed the Swiss bond markets to be the second largest in terms of new international issue volume last year after the U.S. dollar.

Borrowing demand was boosted strongly by the appetite of Japanese corporate borrowers for Swiss Franc issues, many of which were convertible into equity. As in other bond markets these issues appealed to investors anxious to climb on the bandwagon of a very firm stockmarket in Tokyo. At times signs of saturation of such issues appeared in the Swiss market, but in a contrary movement to the general trend coupons on such private placements have fallen with a record low of 1½ per cent being established.

The Swiss authorities have meanwhile been taking a series of steps to liberalise the capital market, the latest of which came in a circular to banks last December.

From this year the ceiling on individual public bond issues by foreigners has been increased to SwFr 200m from SwFr 100m. The Swiss National Bank has also dropped its confidential calendar for new issues, though banks still have to seek approval for individual flotations.

The purpose of the measures was basically to improve the flexibility of the new issues market, but one restriction remains in that foreign banks are still unable to lead or co-manage issues in the public market. It is understood that this reflects continuing uncertainties over the depth of their placing power.

The Swiss franc market has also been experiencing a number of innovations in new issue techniques, the most prominent of which has been in the area of dual currency bonds. These are issues denominated in Swiss francs but repayable in U.S. currency at an exchange rate fixed at the time of issue.

The idea is to give investors a slightly higher yield on their Swiss franc paper—coupons on dual currency issues are higher than those on conventional bonds—in return for a limited vulnerability to exchange rate appreciation of the Swiss currency.

Interest on the bonds is always payable in Swiss francs, but at the outset an investor can see how far the dollar would have to drop before he starts to make capital loss. If *the dollar does not fall that far* during the life of an issue he stands to make a capital gain, but if it falls further he will start to lose money when converting the dollars received from the borrower back into Swiss francs. From the borrower's perspective the annual servicing costs of the issue are less than those on a straight dollar issue, while the fixed repayment terms protect him from appreciation of the franc.

Soditic, the Geneva-based investment house, pioneered the dual currency concept, and it has led to a fairly steady stream of new issues particularly from U.S. corporations which are popular with Swiss retail investors but normally extremely cautious about tapping a market which in the past has given them many currency headaches.

Another innovation that has recently appeared has been the emergence of floating rate private placements staring with a SwFr 100m issue for ENEL, the Italian electric utility. Led by Citicorp Switzerland the seven-year notes bear interest at a margin of ¼ per cent over Swiss franc deposit rates.

But the launch of such floating rate notes and the development of the dual currency market have a deeper significance for the Swiss market. They show that it is a maturing market which is no longer exclusively in the hands of a conservative syndicate of major domestic banks.

Enjoying a renaissance

Sterling bonds

MARY ANN SIEGHART

THIS TIME last year the sterling bond market was in the doldrums. Only one bulldog bond had been launched in the previous four months and that was undersubscribed despite being generously priced.

But sterling bonds have seen something of a renaissance since then. Taking Eurosterling and bulldog bonds together the volume of new issues jumped by 59 per cent to £1.9bn over the whole of last year.

Eurosterling bond issues more than doubled from £460m to £1.3bn, helped by the rebirth of the sterling floating rate note sector, which had been inactive for several years.

Falling interest rates, a stable pound and the re-election of a Conservative Government all combined to revive investors' interest in sterling bonds.

The return of the Conservative Government persuaded investors that fiscal rigour would be maintained for another five years. In addition, besides trying to keep its overall level of borrowing down, the Government has specifically tried to stay out of the long end of the gilt market, thereby providing an opening for other borrowers who want *funds for* 20 years or more.

This has failed to attract the UK corporate borrowers which the Government wanted to encourage but it allowed issuers like the World Bank in November to raise money on very favourable terms. Its £100m bond paid a margin of just 1 per cent over the equivalent gilt-edged stock. The cost to the borrower, which worked out at about 11¼ per cent, was a good 1 per cent lower than the Bank would have had to pay in the New York market — the only other market in which bonds with such long maturities can be launched.

In November, too, yields on Eurosterling bonds moved below those on Eurodollar bonds. For the first time in the year it was both easier and cheaper to borrow in sterling.

By this stage, foreign investors — particularly the Swiss — were worried that the dollar was likely to depreciate. Sterling bonds offered only slightly lower yield and there were better prospects of currency gains.

It was in the autumn too that UK merchant bankers recognised the potential of floating rate notes denominated in sterling.

Demand from banks for sterling assets was growing so fast that the issue of sterling FRNs (floating rate notes) seemed the obvious answer. That market had not been tapped for three years when Societe Nationale des Chemins de Fer (SCNF), the French railways, launched its floater in September through S. G. Warburg.

The issue was scheduled to be £50m but demand was so strong that Warburgs upped it to £75m within hours. It still traded extremely well.

The gap in the market had arisen for three reasons. Corporate loan demand has fallen because of better cash flows and local authorities, which used to borrow from banks, were raising funds more cheaply from the Public Works Loan Board.

On top of that the Bank of England decided to slow down the growth in the sterling acceptance credit market — the market in short-term trade bills — which had proved particularly popular with foreign banks operating in the City.

Other floating rate note issues followed SNCF — the first four of which were also led by Warburgs. Then competitive bidding hit the market in a big way and several issues suffered from being priced too tightly.

The demand for floating rate sterling assets is evidently still there — but only at the right price.

New issue activity in sterling has continued to be heavy so far this year, boosted by the relative strength of sterling against the dollar. Bankers expect the market to remain strong, at least over the next few months.

Market in decline

Canadian dollar eurobonds

PETER MONTAGNON

THE MARKET in Euro-Canadian dollar bonds has lost some of its lustre in recent months as yields have fallen, eliminating the traditional differential with those in U.S. currency.

As a result coupon-conscious retail investors in the Benelux countries who are traditional buyers of these bonds have lost interest in the paper. At the same time yields in Europe have remained above those on the Canadian domestic market, prompting Canadian borrowers to switch their funding homewards.

Issues of Canadian dollar eurobonds stagnated last year at about their 1982 level of C$1.47bn, according to the Canadian securities firm Wood Gundy. But there was a marked drop in both the total number of issues and in the amount absorbed by Canadian borrowers themselves. Out of a total of 27 issues in 1983, 20 were brought to the market by Canadian borrowers for a total value of C$1.07bn. In 1982 there were 36 issues in all, of which 33 were placed by Canadian borrowers for a total of C$1.28bn.

The lower yields on Canadian dollar bonds prompted some new international borrowers to tap the market. *In September* the World Bank floated its first-ever Canadian dollar Eurobond, a C$75m seven-year issue with a coupon of 12½ per cent. This was only a ½ per cent more than the World Bank had paid on a U.S.$200m bond shortly before. In December the European Investment Bank followed suit with a 12½ per cent eight-year issue amounting to just over C$80m. The proceeds were used in a currency swap.

But it is symptomatic of the general problem facing the Canadian dollar Eurobond market that the World Bank's next foray in Canadian currency was on the domestic market with an issue earlier this year of C$100m over five years at a coupon of 11¾ per cent. This was a lower rate than it would have had to pay for a Eurobond and like many Canadian borrowers it had decided to tap the domestic market instead.

The new relationship between domestic and Euro-yields in the Canadian dollar bond market has prompted an increase in arbitrage activity by investors. Increasingly issues in the Euromarket have been finding their way back to Canada as investors there seek out the higher yield. *At the same time* demand for Canadian dollar paper from Germany, Switzerland and Japan has increased. This reflects a perception that the Canadian dollar should at least stabilise if not appreciate against the U.S. currency.

The improving Canadian economy and the country's large trade surplus have in fact helped to keep the Canadian currency broadly stable against the U.S. dollar over the past year. This in turn has meant that it has appreciated against European currencies which have weakened against the U.S. dollar.

But bankers generally agree that it will take a restoration of the Canadian dollar coupon premium over the U.S. dollar market to generate any significant extra demand for Eurobonds denominated in Canadian currency. For lack of such a premium investors in the Benelux countries have been looking elsewhere—for example at the burgeoning market in *Australian* dollar-denominated bonds.

Nor has the Canadian dollar market been able to benefit from the fashion for floating rate notes in the Eurodollar sector. Canada has an active and well developed capital market for floating rate instruments. As a result Canadian borrowers are easily able to obtain such funds domestically at rates well below the country's prime rate.

LONG TERM CANADIAN GOVERNMENT BOND YIELDS VS. U.S. TREASURY BONDS

1983	Canada	U.S.
Jan	12.28	10.98
Feb	11.08	10.57
March	11.07	10.85
April	11.18	10.62
May	11.03	10.91
June	11.56	11.20
Jul	12.03	11.95
Sep	11.76	11.65
Aug	12.34	11.77
Sep	11.76	11.65
Oct	11.73	11.85
Nov	11.80	11.89
Dec	12.02	12.00

THE NIKKO PERSPECTIVE

ON WHAT Motivates International Portfolio Diversification

Carl H. Tiedemann, General partner of Tiedemann/Karlen Partners and adviser to The Nikko Securities Co. International, Inc. Mr. Tiedemann is the former president of Donaldson, Lufkin & Jenrette, Inc. and a former governor of the American Stock Exchange.

***ONE THING** that U.S., Japanese and many European companies have in common is a growing base of pension assets that must be prudently managed. Where these companies differ is in how rapidly pension fund managers have diversified their portfolios internationally. From the Japanese perspective, the Europeans were the first to enter the Japanese securities market. And until recently, European money managers have almost monopolized—at an estimated 85 percent—the flow of institutional funds from Europe, the Middle East and even North America into Japanese equities. Last year alone, net purchases of Japanese equities by nonresidents amounted to approximately US$4.4 billion.*

The noteworthy trend during 1983, however, was the growing interest of American pension funds and other institutions in the Japanese stock market. The consensus seems to be that this trend should persist. What is your analysis of recent developments?

Tiedemann: As you imply, the dramatic growth of pension funds in both the United States and Japan has created an environment where money managers have been increasingly looking outside their national borders for investment opportunities. For many years the financial community has talked about investing globally and internationalizing markets. I believe that at long last it may now become a reality. U.S. investors have certainly learned that there have been many times when U.S. markets have been bad for an extended period, while other markets have been performing well.

***THOSE** of us who have closely observed the Japanese economy tend to ask "why now?" after the Japanese economy seems to have passed its period of peak growth. What do you think American and other international institutions see in the Japanese stock market?*

Tiedemann: There are probably many investors who wish they had found the Japanese market several years ago. If they had, they certainly could have materially improved their performance.

In my judgment, the situation has not really changed all that much. The performance of the Japanese economy in recent years, measured in terms of real rates of growth, the ability to control inflation and other economic fundamentals, has compared very favorably to other economies. The only people seemingly still dissatisfied with the rates of Japan's economic expansion—the highest among the industrialized nations—are my Japanese friends.

My reading is that the flow of American pension funds into Japanese equities first and foremost indicates confidence in the Japanese economy and its prospects for growth. I think that investors are also pleased by the strengths of Japanese companies, both the quality of management and the quality of earnings. Another factor is the liquidity of the stock market in Japan. With total capitalization of the market at over US$500 billion—the second largest of any equities market in the world—and daily trading volume recently averaging US$800 million, the Japanese market certainly has the liquidity that institutions require.

My own assessment of the situation is that investors are also taking a look at the region as a whole. Many analysts agree that Asia has some of the best growth prospects. Within the region, Japan is best positioned to act as a leader.

***MUCH** of what you have just said seems to have been equally true 10 years ago. In the meantime, of course, we have seen the yen emerge as a currency of settlement and even as a reserve currency, but have there been any other structural factors that have facilitated the growth of interest in Japanese equities?*

Tiedemann: From the position of an American money manager, I think the situation has changed significantly. A decade ago the Japanese stock market was substantially smaller than the U.S. market. Many managers obviously thought it was too small. Another factor that has changed is the quality of research and the quantity of industry statistics available on Japanese companies. The companies themselves are doing a much better job of communicating with investors, including conforming with SEC-type financial reporting requirements. The firms providing investment research are also doing a better job of covering the Japanese market.

In this connection, we might also look back on the passage of ERISA almost 10 years ago. The impact of this legislation was to make investors fear they would be violating their fiduciary responsibilities or not living up to the "prudent man rule." The result was that many investors passed over the opportunities in the Japanese market. Now, with much better information, many managers feel more confident that they can make prudent investments in Japan. I for one think that the timing is ripe for further internationalization of stock markets worldwide, and I expect to see more money flowing into Japan.

***OBVIOUSLY** the internationalization of securities markets is a multifaceted theme. You mentioned that better information is now available on Japanese companies compared with a decade ago. Back in 1974, the number of Japanese companies that had issued securities in international markets barely exceeded 30, but now the number is approaching 300. Of the 1,441 companies listed on the Tokyo Stock Exchange, foreign investors hold over 10 percent of the shares of approximately 300 companies. In total, nonresident investors hold 5 percent of all shares outstanding—a significant figure considering the size of the float for many companies. A few managers are even pleasantly surprised that international investors have taken such a liking to shares of their company.*

How does this situation compare with the United States, and do you feel that American firms are looking to raise capital internationally?

Tiedemann: To respond to your last point first, I feel that most managers are encouraged that foreign investors have become large holders of their securities.

With Japan as the case in point, one can cite the growing interest of Japanese institutions—and even individuals—in American equities. These investors are also diversifying, and the securities industry is encouraging this growth. Nikko Securities and two other Japanese brokers are already members of the New York Stock Exchange. We have also recently seen a number of discussions between Japanese brokers and U.S. commercial banks regarding the establishment of joint venture trust companies. One obvious purpose is to interest more Japanese institutions in investing in the United States.

At the same time, U.S. securities firms have opened branches in Tokyo, many of them within the past two years, and several of their representative offices have applied for branch status. Their European counterparts have two branches and over 40 representative offices in Tokyo.

***WHAT** are your views on U.S. and other companies tapping the Japanese capital market?*

Tiedemann: As background, let me say that an increasing number of American financial officers have developed a sophisticated understanding of international financial markets. They have put this understanding to work in financing inventories and expanding operations by tapping foreign markets at the most opportune moments. In addition, many corporate financial officers who oversee extensive foreign activities will use a number of currency hedging devices to reduce the risk of major currency fluctuations. There are still, however, a number of large corporations that have not taken the time or given the effort to developing the skills needed to take advantage of markets outside the United States. That includes Japan.

The Japanese market, however, does have a number of special features. Only a handful of foreign companies are listed on the Tokyo Stock Exchange, and the number has declined from a peak of 17 as recently as 1977 to only 11 companies at present. Listing regulations and costs are certainly a consideration but so is the level of interest among Japanese institutions. I expect this level to rise as fund managers increase the percentage of non-Japanese equities in their portfolios.

The market for debt securities is more of a regulatory issue. Although many firms would like to gain access to the Japanese bond market, the emphasis on collateral and other rather unusual regulations have discouraged them. It is in the interest of Japan to further open the bond market, and I am pleased there are signs of a move in this direction.

***RECENTLY** it has been hard to speak about corporate finance without broaching the subject of venture capital. This a hot topic in Japan as well as in the United States. In the early 1970s, Japan experienced its first wave of venture capital as many securities companies and banks rushed to set up venture capital arms. Most of these were financing second- and third-phase companies rather than start-up situations. Then the oil crisis occurred, and the topic faded.*

Now there is another wave of interest in venture capital, and the number of venture capital operations has more than doubled over the past two years. A growing volume of offshore funds is finding its way to new partnerships. The obvious attractions are the ability that Japanese companies have demonstrated in the high-technology field and the basic vitality of the Japanese economy.

The structural factors encouraging the recent boom in venture capital include the reduction of requirements for over-the-counter trading and the relaxing of what have been comparatively stringent listing requirements on the major exchanges. How does this situation in Japan compare with the United States?

Tiedemann: With the reduction of the rate of capital gains tax in the United States, interest in venture capital has increased dramatically. Over the last two years, several billion dollars have been raised by different professional groups to be used as venture capital—more than was outstanding just a decade ago.

It is an exciting, healthy trend for the United States to have such a large pool of capital available for entrepreneurs who wish to start new businesses. One risk is that there has been too much capital raised for the number of good new investment opportunities available, thereby reducing the rate of return to investors in the future. At this point, I think I would rather be the entrepreneur than the investor.

In my judgment, there should be the same venture capital opportunities in Japan as there are in the United States. In fact, I am optimistic about the Asian region as a whole. Venture capital is a relatively simple financing technique compared with the cumbersome mechanisms found in many developing nations. Looking at Japan alone, I think the real opportunities lie in the field of high technology.

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Star performance last year reflects growing vogue

ECU bonds

PETER MONTAGNON

ONE OF the star performers in the international capital markets over the past year has been the European Currency Unit (ECU), the currency basket of the European Economic Community.

According to Morgan Guaranty Trust, new international bonds denominated in ECUs were equivalent to $2.02bn last year compared with $1.98bn in 1982 and only $309m in 1981. Use of the currency in the Eurocredit market has also been growing, with the launch early this year of an ECU 450m credit for Ente Nazionale Idrocarburi, Italy's state energy conglomerate.

At the same time trading of ECU deposits in the interbank market has also become more sophisticated. In the early days most trading took place by reference to the weighted deposit rate for component currencies of the ECU; now it is increasingly handled on an outright basis which means banks are dealing ECU deposits without breaking them down into their component currencies. According to Mr Yves Le Portz, president of the European Investment Bank, some estimates now put the total being placed in the money markets as high as ECU 10bn.

Clearing system

So far has this process gone that those banks which now specialise in ECU business are discussing the creation of an ECU clearing system using the Basle-based Bank for International Settlements as a central clearing point for ECU accounts. Such a clearing system, if it is introduced, would be an important sign that the ECU is slowly coming of age as an international currency.

Why has the ECU enjoyed such a conspicuous success when efforts to create a market in another composite currency, the Special Drawing Right (SDR), are generally thought to have failed? Like the SDR, the ECU is an abstract concept—you cannot spend it in the shops. That was a drawback for the SDR and on the surface the same should apply to the ECU as well.

There are two important differences, however. The SDR contains a significant dollar element in its weighting. That means it is not particularly valuable as a counterpoint to the U.S. currency in exchange market.

At the same time EEC institutions are active depositors of ECUs in the commercial banking system. The flow of such deposits into the market is thus more consistent and deep.

When a sudden fashion for SDR deposits emerged about three years ago banks were relying heavily on one single source, Shell (Brunei), which turned out rather capricious in its choice of currency.

Added to this is strong ideological support for the ECU from some European governments, notably those of Italy and France. This has led to a lot of official sympathy and encouragement for the development of an ECU market.

All this would, however, have little impact without some genuine market demand for ECUs both from the perspective of investors and borrowers. Here the ECU does offer a unique advantage. As a basket currency it includes some of the weaker European currencies, which makes it less vulnerable to appreciation (which the borrowers like) and gives it a higher rate of interest than some other dollar alternatives such as D-marks, yen and Swiss francs (which investors like).

As a result, the steady flow of ECU bond issues over the past year has been readily absorbed by the market despite declining yields. By the end of last December, according to the Luxembourg Stock Exchange, the average weighted yield of ECU bonds had fallen to 11.89 per cent from 12.3 per cent at the start of 1983. Recent new issues have carried yields of about 10¾ per cent.

A glance at relative borrowing costs for several currencies shows quickly why the ECU has become fashionable for borrowers. According to figures compiled by Istituto Bancario San Paolo di Torino the cost to a French borrower of raising dollars was 30.81 per cent per annum for the four years to April 1983 after interest and the depreciation of the franc is taken into account. The cost of ECUs was only 10.59 per cent. It would have been marginally cheaper to borrow D-marks, Swiss francs or French francs but all these currencies were much more volatile (except for the French franc which would have been hard to obtain internationally in any significant amounts).

For Italian borrowers the picture is much the same, with the cost of ECUs only 17.8 per cent compared with 31.81 per cent for dollars.

Borrowers in France and Italy are in fact those for whom the ECU makes the most sense. The risk of currency losses is reduced because their own currencies are part of the basket.

Broader range

As a result the ECU bond market has tended to be dominated by such issues as well as EEC institutions such as the European Investment Bank. As the acceptability of the currency has grown over the past year a broader range of names has come to the fore, however. ECU bonds have been arranged for the World Bank, for WestLB and Bank of Tokyo among others, while South Africa recently launched an ECU 40m bond through Credit Commercial de France.

Yet a major hurdle remains to be overcome on the placement side, which is still heavily dependent on investors in Belgium and Luxembourg. According to one senior Belgian banker such investors buy about 70 per cent of all paper issued. By tradition such investors are highly interest rate conscious. They also mistrust their own currency. ECUs which were created by European institutions on their doorstep are a logical investment medium.

Large-scale international investors are still very cautious about the ECU, however, and the main Belgian banks which issue ECU bonds operate a queuing system to prevent the market from becoming saturated. A bone of contention is that French banks, the other major issuers, are unwilling to join this queuing system, which has led to frayed tempers on both sides.

The ECU basket

DM 0.828
£ 0.0885
FFr 1.15
L 109
Fl 0.226
BFr 3.66
LuxFr 0.14
DKr 0.217
I£ 0.00759
ECU 1

Only if the ECU market were to attract a much broader range of investors would the need for a queue diminish and one problem here is the fear that ECU issues are not as readily tradeable in the secondary market as those in other currencies which have been long established in the bond markets. The other problem for the sophisticated investor is that if holding an ECU bond reduces the risk of currency loss it also reduces the opportunity of currency gain.

Even last year the ECU accounted for only 2.6 per cent of total new issues in the international bond market. Swiss franc bonds and private placements accounted for 18.8 per cent, giving that currency a much more important role as a counterweight to the dollar. The fact remains that many investors buy bonds with an eye to currency appreciation and these investors have an in-built resistance to a compromise vehicle where currency appreciation is not easy to maximise.

The growth of ECU business in recent years must in part be explained by the general confusion of currency markets. Traditional alternatives to the dollar such as the D-mark have themselves been weak and from that point of view the ECU has been an alternative for investors for the D-mark as much as for the dollar.

What remains to be seen is how the ECU market will respond to the reversal of the dollar's fortunes that many currency commentators now expect. If the D-mark moves rapidly into the ascendancy interest in ECU investments could dwindle. Then its promoters would face an even harder job in marketing its role as a safe haven for investors' funds.

As competition sharpens, banks take on higher risks

Project financing

MARGARET HUGHES

WITH FEWER and fewer projects getting off the ground the competition for contracts is intense. The financial package which contractors offer is now often more important than their technical expertise, so that the competition among banks for the project financing that is still available has sharpened considerably.

The net result is that banks are now more prepared to take on higher risks—or at least the responsibility for identifying and evaluating them. The general erosion of subsidised export credits has also meant that they are having to come up with more innovative sources of project finance.

More use is being made of limited recourse financing, where the main security for loans is the future cash flow of the project rather than the borrower's ability to repay. Loan repayments are tied to the future revenue generated by the project rather than to the project sponsor's balance sheet. This form of project financing originated in the U.S., where it has been used for some years for energy and energy-related projects. It has since been extended to other parts of the world, particularly Australia, and to mineral resource industries.

Pure project financing or pure recourse financing means that the project loan will be repaid entirely from cash generated by the project. But there are few such cases where there is no underlying guarantee from either the project operator or sponsor such as the local government. More usual is limited recourse financing, where recourse to the borrower is still required by the banks during the early stages of the project. On the whole banks still demand recourse to the project operator during the construction period to ensure that the project is both completed and that cost over-runs are met and production has reached a predetermined target.

Once the project is underway banks are now more receptive to project rather than corporate recourse, relying on their own evaluation of the risks. None the less, they usually require evidence of long-term sales contracts for the project output at market-related prices to ensure that revenue is sufficient to service the loan. Thus whereas banks still regard the development and completion phases as high risk areas they are now more inclined to see the production and marketing stages as bankable risks.

The sources of funding for projects—limited recourse or not—are essentially export credits, Euromarket finance and aid funds. But banks are being forced to become more innovative in the way they put these together in one package. As one project finance banker put it: "With everyone strapped for money nothing is straightforward any more. There will have to be much more flexibility."

Bankers expect financial packages to comprise a wider range of instruments, with more multinational financing and greater use of bilateral and multilateral aid funds. Equity financing is also representing a higher proportion of the financial package.

One of the major changes in project financing has been the erosion of subsidised export credit following the commitment of OECD countries to eliminate the subsidy element. The days when officially supported export credits were some five to six percentage points cheaper than market rates are gone. Export credit rates are now often more expensive than market rates, particularly when related to exports to "relatively rich and 'intermediate' countries."

Less attractive

Export credits, which have traditionally accounted for some 85 per cent of the foreign currency element of projects, are likely to be even less attractive now that the consensus countries have established a matrix of minimum interest rates which will be more frequently adjusted in line with market rates. Bankers are therefore looking at alternative sources of fixed-rate long-term finance until such time as borrowers accept export finance at variable rates.

Among the range of alternatives under consideration is funding by pension and insurance funds which are already established in the long-term fixed rate market. Another possibility is establishment by the commercial banks of a consortium bank along the lines of Ausfuhrkredit (AKA) of West Germany, which refinances long-term loans to exporters. This would have the advantage of access to export credit agency guarantees without being constrained by consensus minimum interest rates. Neither of these proposals has made much progress, however.

Much nearer realisation is the use of the Eurobond and sterling bond markets, using export credit agency support in the form of a guarantee only — ie, "pure cover." It is argued that use of the bond market with an export credit agency guarantee would provide a cheaper source of fund — for exports to those countries which are liable for the higher consensus rates and in those currencies where the market rates are well below consensus rates.

There would be a saving on the cost of the premium for the specific bank guarantee, which is currently 0.6 per cent of the loan value, but allowance would have to be made for the cost of the insurance premium.

It is also argued that the bond market would give access to fixed-rate financing at market rates to borrowers which would not otherwise be able to tap the Eurobond market because of their low credit rating.

There are, however, several problems in using the bond markets. One is that bond issues are usually drawn down immediately in a single lump sum, whereas the financing needs of a project are spread over long periods of time. Another similar problem is that bonds are usually repaid in one bullet repayment, whereas the consensus requires that loan repayments are made in semi-annual instalments.

But bankers are evolving ways of overcoming these obstacles with a view to financing projects through the bond markets in the very near future.

Funds could also be raised at a floating rate on the Eurocredit market to finance the project construction period and then refinanced by means of a fixed rate.

One major hurdle has already been overcome in that Britain's Export Credits Guarantee Department has agreed for the first time to provide a direct guarantee to holders of Eurobonds and sterling domestic bonds. This is a major departure, since previously ECGD has only extended its guarantee to banks.

State agencies obliged to throttle back

Export credits

CHRISTIAN TYLER

THE FINANCIAL predicament of many developing countries has rebounded with a vengeance on the government-backed export credit insurers on whom those countries have traditionally relied for trade finance.

Only last month came reports from Tokyo that the Japanese Eximbank, always cautious, had stopped underwriting exports to 25 countries in Latin America, Africa and Eastern Europe.

Britain's Export Credits Guarantee Department, one of the largest agencies of its kind in the world, is now running a cash flow deficit for the first time in 30 years. In the past few weeks it has added the Philippines to the lengthening list of markets for which it is providing no cover, or highly restricted cover, for short-term business.

Political causes of loss—chiefly debt rescheduling or delays in foreign exchange payments—have left agencies with abnormally high exposure in risky markets. Three-quarters of the 200 countries in which the ECGD has exposure are in the lower two of its four creditworthiness categories, and country limits are being ever more carefully set.

Nearly 60 per cent of the ECGD's estimated £32bn-worth of commitments is with the riskier "C" and "D" markets. Claims by exporters against the Department nearly doubled in the past financial year to £584m.

As Mr Jack Gill, head of the ECGD, told the House of Commons public accounts committee recently, 18 countries have concluded rescheduling negotiations, seven are awaiting signature of bilateral agreements, nine have been through the first, multilateral, stage at the so-called Paris Club of creditor nations—and the list is still growing along with the volume of claims due to political cause of loss.

Those who expected governmental export banks to fill the sovereign lending vacuum created by the private banks have by and large been disappointed. One exception to the prevailing mood of retrenchment has been the U.S. Eximbank.

After criticism of Eximbank from the U.S. industry that it was not doing enough to encourage and safeguard their export business, the U.S. Administration last year signalled a change of heart.

Within a few months the Eximbank had authorised $375m in short and medium term credit lines to Mexico, guaranteed a $124m long-term loan for a communications satellite project in that country, backed sales to the national oil companies of Brazil and Peru and confirmed a $550m loan for the Yacyreta dam on the Argentina-Paraguay border.

Last August it pledged special loan and insurance guarantees worth up to $1.5bn for Brazil and up to $500m for Mexico.

The commercial banks, weighed down as they are with non-performing loans and bad debts caused by bankruptcies, are understandably shy of extending trade credit to countries where official agencies fear to tread.

According to export finance managers in London the banks are also reducing their country lending limits.

A disincentive of a different kind for trade lenders—and borrowers too—came last autumn when the members of the Organisation for Economic Co-operation and Development (OECD) decided to reduce the gap between subsidised credit rates and commercial rates of interest. Responding largely to U.S. pressure, the export credits "consensus" agreed to start phasing out the subsidy element which still costs the British taxpayer, for example, some £500m a year.

The OECD interest rate matrix is to be automatically adjusted not more often than every six months, in line with market rates.

At the same time the OECD agreed to allow governments to support loans in low interest rate currencies (LIRCs)—defined as those with a long-term fixed rate below the consensus minimum for the relatively rich countries, currently 12.4 per cent.

Reference rates for currencies likely to qualify as LIRCs are published monthly, and include a premium analogous to that added to the special yen rate already permitted by the consensus.

But yen financing with official support under OECD rules has had few takers since it has been permitted; and it appears that the LIRC option will suffer similar drawbacks.

To begin with, frequent adjustments of the reference rates introduces an element of uncertainty, even confusion.

Secondly, the system was designed partly to ensure equal and easier access to long-term capital markets; but in some LIRCs these markets scarcely exist. Again, according to some export finance managers, the low interest rate option is often an illusory benefit for the buyer.

Strong currencies like the Deutschemark or Swiss franc, borrowed at above commercial rates, may easily prove in the long run a more expensive way of financing projects or capital goods supply contracts than, say, soft, high-interest French francs.

Exporters interested in the LIRC option are being told to prove first that they cannot finance their deals on a pure cover basis only—that is, by using the commercial market for their export credit, foregoing bank guarantees and taking out a simple insurance policy against non-payment by the customer.

The bleak climate for export lending has inevitably spurred the risk-takers to devise new ways of keeping the channels open. For example, the private insurance market has found an increasingly promising niche, offering export insurance against political—and latterly commercial—risk in markets where the official agencies feel already overextended.

The private market is still relatively small, but can often plug the gaps that will enable an exporter with a good track record to continue doing business in difficult markets.

Another idea now being discussed between the ECGD and the banks is that the traditional risk-sharing ratio might be changed. The banks normally carry the risk on the first 15 per cent of a contract, and get 100 per cent backing for the 85 per cent that remains.

Now the ECGD is suggesting that it will entertain risk in difficult markets provided that the bank or the exporter will take, say, another 10 or 20 per cent of the risk. ECGD is virtually unique among credit insurers in giving 100 per cent guarantees, but the policy may be changing.

It is not clear yet, however, whether this is a formal change of policy, or an ad hoc response to hard times for lenders and borrowers alike.

New formula provides banks with greater security

World Bank co-financing

MARGARET HUGHES

IN AN ATTEMPT to encourage commercial bank lending to developing countries the World Bank a year ago launched a new co-financing schema whereby it participates directly in a syndicated commercial bank loan. Previously co-financing of projects involved two parallel loans, one from the World Bank and another from commercial banks. Now the World Bank will continue to make its direct loan for the project but will also participate in the commercial loan.

World Bank co-financing was first introduced in the mid-1970s with the aim of encouraging commercial banks to provide funds for projects and countries which they might otherwise sbun. The rationale behind co-financing is that it provides the commercial banks with greater security because borrowers are less likely to default on a project where the World Bank is involved.

The Bank proudly claims that there has never been a default or rescheduling of any loans in its 36 year history. More cynical commercial bankers point out that the World Bank has been eble to evoid such an event by providing additional funds through its structural funds where a country or project has run into tronhle.

To date World Bank co-financing has had limited success in persuading banks to provide commercial funding for its projects. Some $7.5bn private-sector funds bave been provided for World Bank projects over the past 10 years. Even so, only some 12 per cent of the Bank's projects have private-sector co-financing, while co-financing still only amounts to 1 or 2 per cent of all commercial bank lending to developing countries. Some 70 per cent of the co-financing undertaken to date has been provided by commercial banks *from four countries* — the U.S., Japan, UK and Canada.

Cautious

As banks have become increasingly ceutious in their lending *since* the onset of the international debt crisis, they have been negotiating with the World Bank to make co-financing a more ettractive vehicle for commercial bank lending. Commercial banks have long wanted a cross default cleuse, hut the best they have ohtained over the years was a "comfort clause" whereby—at tha World Bank'e discretion—a default on the commercial loan could cause its loan to be declared in default. In practice this has never happened.

Even now the banks have not *obtained such a water-tight* clause. But it is argued that since the commercial banks and the World Bank are participating side by side in the sama loan the hanks will have greater security than before.

Borrowers it is reasoned, will *be loath* to *default on such a* loan for fear of jeapordising their access to other World Bank financing. In the words of Mr Tom Clausen, president of the World Bank, the new co-financing arrangements amount to one loan not two and thus a default on one lender is a default for all.

By providing increased security for commercial banks the overall aim of the new *formula is to ensure that* developing countries have access to capital markets thet might otherwise be closed to them. In addition it provides them with longer maturities than they would normally obtain from commercial lenders. The World Bank also hopes that it belps borrowers get better terms altheugh the commercial hanks have made it clear that they will not be offering "cut-price" loans.

The World Bank can participate in the commercial lending in three different ways. It can either participate directly in the leter maturities of the loan contributing between 15 and 20 per cent of the private loan to produce significantly longer maturities than normally available in the market. Tha annual repayments of the principal by tha borrower would be made first to the commercial banks until their share of the loan is fully repaid. Then in the later years the repayments would be to the Bank to repay its share. There is also a sell-back clause which allows commercial hanks to participate in the later stages of the loan if they wish.

This is the option which bas been used for all three co-financing loans which have heen undertaken so far for Hungary, *Thailand and Colombia*. It is likely to remain the preferred option for the commercial banks for some time until they bave had time to assess the merits of the new formula.

Another alternative would be for contingent participation by the bank in the later maturities of the loan, again to the level of 15 to 20 per cent. This would be used wbere the borrower makes fixed repayments on a floating rate loan. The World Bank *would participate where* the maturity had to be extended as a result of an increase in interest rates during the period of the loan, its commitment being to finance the balance outstanding.

The third option would be for the bank to guarantee repayment of the leter part of the loan rather than to participete in the loan directly.

Grace period

The first loan to he co-financed according to the new formula was a $100m syndicated credit for Hungary arranged by Arab Banking Corporation last August in which the World Bank's participation was 15 per cent amounting to $30m. This loan, along with other World Bank loans for tha projects involved, also marked Hungary's debut as e World Bank borrowers following Hungary's membership of the Bank in July 1982.

The majority of the loan was denominated in dollars with a margin of 1¼ per cent on a Libor tranche and of 1 per cent on the prime tranche. The term of the loan was six years with three year grace period but with World Bank participation extending the maurity to eight years. The remaining $47m of the loan *was* financed in yen with the Longterm Credit Bank of Jepan co-ordinating this part of the loan which had an extra year's maturity. The syndicated loan was split between two projects—one for grain storage and agricultural mechanisation and the other for energy diversification and conservation—with the World Bank *also* providing a direct loan of $236m.

The second co-financed loan involving direct World Bank participetion was a Y8bn ($36m) commercial bank credit arranged last September hy Mitsui Bank for the Thailand telecommunications anthority.

Financed entirely in yen, this loan had a maturity of 12 years with a five-year grace period, extended to 14 years through the World Bank's participation. The loan was in two tranches with the smaller fixed-rate tranche carrying a margin of 0.3 per cent over the long-term prime rate and the Y5bn floating rate tranche carrying a margin of 0.1 per cent. The World Bank provided Y2bn of the loan, participating in the floating-rate tranche.

The latest borrowers to negotiate cofinancing under the new formula is Colombia's electricity authority, Financiera Electrica Nacional (FEN). A commercial bank loan of $200m is being raised with the World Bank contributing 15 per cent in eddition to a direct World Bank loan of another $200m. Some $175m of the commercial bank loan is denomineted in dollars with the remaining $25m denominated in yen. Midland bank is co-ordineting tha dollar portion, while the Industrial Bank of Jepan wil lbe responsible for the yen portion.

The dollar portion of the loan will carry e margin of 1½ per cent above Eurodollars or 1¼ per cent *over prime*, the *same* terms as on the $210m syndicated credit arranged last year for Colombia by Chemical Bank. The maturity is, however, longer —eight years rather than six— with World Bank participation extending this further to 10 years. Tha yen portion is being raised et e margin of 0.4 per cent over the long-term prime rate.

Colombia might have expected to obtain easier terms on a loan where the World Bank is providing additional security by its direct participation given that unlike Mexico, which obtained better terms on its new $3.8bn loan, Colomhia has not had to reschedule and is considered to be one of the few good credit risks in Latin America. The fact that it didn't would seem to confirm that the new co-financing will not lead to price cutting on margins. The Colombian loan is expected to be followed shortly with a smaller cofinancing deal for Paraguay which has also not had to reschedule.

There are mixed views amongst commercial bankers as to the merits of the new co-financing scheme. Some see the main advantage to be the reduced likelihood of default. Others argue that of a greater advantage of direct World Bank participation is that the Bank is both more experienced and bas greater resources available to evaluate and monitor projects. There are also banks who contend that the changes in the cofinancing scheme are more cosmetic than real.

The claimed additional security is, they say, "illusory" for the World Bank is still not guaranteeing the risks.

Some bankers also complain that the loan documentation follows World Bank rather than commercial bank procedure and as a result is both slow and cumbersome.

The World Bank meanwhile has high hopes for its new scheme which it is undertaking as a pilot project alongside its existing cofinancing scheme. It will only apply to projects which have already been approved by the World Bank so that appraisal of the schema can be undertaken relatively quickly. It aims to undertake between 15 and 20 such cofinanced loans within two years involving total cofinancing of some $2.5bn.

Sub-participation on the increase

Syndicated Credits

MARGOT HEWSON

AFTER DROPPING as much *as one* quarter of its volume in 1983, the market for international loans has little chance of significant recovery this year. Instead, the trends which emerged in the wake of Mexico's debt collapse in August 1982 are likely to intensify, paring still further the scope for loan syndications and widening the disparity between so-called quality and lesser borrowers.

Against this gloomy background the banks have had more than a flutter with floating rate notes and, in an effort to satisfy their desire for lost fees and shorter maturities, are expected to go deeper into the loan sub-participation business.

Even taking into account involuntary lending to Latin America last year, the volume of international loans shrank by over $20bn to $80.4bn, according to the Organisation for Economic Co-operation and Development (OECD). Morgan Guaranty figures put the total of publicly announced Eurocurrency credits with more than 12 months' maturity at almost $74bn, down from almost $85bn a year earlier. As for 1984, any impetus to growth will likely be stifled.

True, several developed countries are showing an improving current account trend—Sweden, Denmark, France and Italy, for example—making them even more attractive to asset-hungry lenders. In the Far East the Philippines' woes have yet to tarnish the creditworthiness of neighbouring countries whose economic growth potential is the envy of the Western world. Ambitious oil majors wishing to swallow their competitors will still need to borrow and energy projects themselves will show a healthy appetite for borrowed capital.

Great swathes of the world remain effectively off limits, however, when it comes to new lending. Morocco and most of black Africa, every Latin American country bar two or three, the Philippines: not one of them will become an irresistible prospect again this year. The chances are that others will join the ranks of the reschedulers.

Some creditors are already asking how long Nigeria can manage without restructuring its medium-term debts, Kenya is on some banks' danger lists and others fear the protracted Middle East war will eventually cripple Iraq, which anyway faces a payments bulge in 1985.

No one would deny the hard work done to keep the international financial system alive since Mexico's demise. However, for many the knottiest problem remains how to deal longer term with developing country debt and, in particular, Brazil.

While the most tenacious banks apply themselves to this conundrum, some others less deeply involved in the syndicated market as a whole will stay out, preferring to concentrate on more traditional activities such as trade financing or domestic business.

So far in 1984 there have been few signs of the smaller players—U.S. and European regionals, for example—regaining their confidence and stepping back into loan syndications.

As a result, syndicates have become top heavy with lead managers retaining a substantial part of their underwriting, and many expect this trend to continue. Where, three years ago, a marketing bank might have sent out literally hundreds of telexes for a large Eurocredit, the syndication is now a far more discreet affair; targeting is the keynote.

"We shall see far more club deals in 1984," commented a leading U.S. eurobanker. "Syndication and selldown in the market will just be the icing on the cake."

As for terms, the law of supply and demand suggests top-notch borrowers could benefit from the scarcity of acceptable risk with longer maturities and yet tighter interest rate margins. While some would argue banks have already overstretched themselves in taking any rate of return as long as it is positive, others see little likelihood of shaking off currently fine spreads for the likes of Sweden or Ireland.

Such is Ireland's standing in the market that it is trying to negotiate — downwards — the terms of its $500m 1983 syndicated credit co-ordinated by Citicorp. Most providers paled at the thought, fearing a dangerous precedent among similarly attractive sovereign borrowers.

Given the many restraints on the market this year, many observers predict greater use of less-familiar instruments. Arguing that the problems of rescheduling countries might have been far easier to handle had they not borrowed so heavily in the appreciating U.S. dollar, one specialist forecasts a rise in the volume of loans denominated in European Currency Units, and other currencies.

Malaysia has already gone for diversification, with its C$150m Canadian prime-priced credit through Royal Bank of Canada and others. Interest rate swap transactions and bankers acceptance facilities could also enable second-tier borrowers to raise money from otherwise highly selective lenders, while revolving underwriting facilities may help satisfy lenders' demand for shorter-term assets.

The banks' desire to gain flexibility and reduce maturities has led to two distinct developments: a flood of floating rate note issues in January and February, and growing interest in loan sub-participation. Central banks, European regionals, U.S. savings and loan institutions and Japanese banks are prominent among the many who have leapt aboard the FRN bandwagon, despite the rapid fall in margins and some greatly extended maturities.

A growing number of banks wonder whether they should get into the silent sub-participation business as a product line, rather than on the ad hoc basis which has been around for many years. Sub-participation (its proponents stress this nomenclature, rather than the more familiar "selling off") involves one bank already committed in a deal, usually already signed, inviting another to take a stake in it for less than the full maturity and for less than the full spread specified in the loan agreement.

This enables a bank such as Citicorp, one of the leading lights, to earn fees on loans without having to book the sub-participated amount of assets, thereby increasing the return on portfolio without increasing the burden on the capital/asset ratio. "At the end of the day, it boils down to kidding the bank's accountants," was one observer's wry assessment.

The depth of this activity is by its nature hard to gauge. Since it is done silently the borrower is unaware of it, unlike loan assignments which have to be agreed. Alongside Citicorp, Bankers Trust, Lloyds Bank and Midland Bank are mentioned as keenly offering assets, while typical buyers would be the lower tiers of banks who want less than an eight- or 10-year commitment.

Asset trading is dependent upon margins staying low — who would buy into an old loan if he could get a higher spread on a fresh deal? — and viewed cautiously by many of the involved. Some speak of the "integrity of the loan mandate," while others fear the borrower's wrath if he finds out. Some keen asset managers would argue it is none of the borrower's business; this is just another way of funding loans, and funding is a matter for the banks to decide.

Advantages of sub-participation from the market's point of view are that it can free large underwriters to go into a new deal, and bring in smaller banks who prefer shorter-term risk. But a major disadvantage is that it, too, is restricted to the loans of better quality borrowers.

While there is a little appetite for swapping Less Developed Countries debt to suit the geographic look of the portfolio, there is hardly more scope for sub-participating existing Nigerian, Brazilian or similar debt than there is for syndicating new loans to those countries.

SECTION II – COMPANIES AND MARKETS

FINANCIAL TIMES

Monday March 19 1984

INTERNATIONAL CREDITS

Broken Hill goes mining in the FRN market

BY PETER MONTAGNON IN LONDON

BHP Bank bond average		
March 16		Previous
99.987		99.937
High	1983-84	Low
102.017		97.899

BROKEN HILL Pty, Australia's mining, steel and natural resources concern, is to break new ground in the Euromarkets by using the bond market to finance a major slice of its coal mining project in central Queensland.

For the first time the floating rate note (FRN) market is to be used to provide project finance that is "non-recourse," which means lenders are repaid out of the project's cash flow rather than as a result of any guarantee from the borrower.

Details of the package were unveiled after its signature in Singapore on Friday. The amount has been reduced to $785m from $1.13bn following the withdrawal of some of BHP's partners. Of the new amount $401m will be raised in the FRN market, $114m through a Eurocredit and $270m through an issue of commercial paper in the U.S.

This unusual structure has been made necessary by Australia's tax laws which make interest on bank credits subject to withholding tax. As a result the bank credit component, which normally forms the core of a major project, financing has been reduced to a minimum, while the remainder of the money is being raised in the securities and commercial paper market where the tax does not apply.

The natural caution of bond market investors has also forced an unusual structure on the floating rate notes, however. There are to be two issues, one of $335m guaranteed by Bank of Tokyo and one of $48m guaranteed by Bank of America.

Although Bank of Tokyo is the sole guarantor of the larger issue it has effectively syndicated its guarantee commitment among other lenders. All are to receive a fee for taking on the project risk in this way which is understood to be equivalent to the margins on the credit.

These start at ⅜ per cent over London Eurodollar rates and rise to stages to ¾ per cent. The life of the package is 12 years and lead managers are Bank of Tokyo, Bank of America, Chemical, Commonwealth Trading Bank of Australia, Continental Illinois, Industrial Bank of Japan, Long Term Credit Bank of Japan, National Australia Bank and National Westminster.

Overall BHP may well have achieved a lower cost on this project by using the FRN market than that which would have applied on a bank credit. While lead managers are assuming the risk, they are providing only a small portion of the funds. The BHP margins are lower than those on another Australian project finance loan signed last week – a $235m credit for CRA (Argyle) Finance to finance a diamond mine. These margins start at ⅝ per cent but rise to 1⅛ per cent once the project is completed.

This week should see some developments in Ireland's efforts to renegotiate the terms of its $500m credit arranged last year. The original terms are now regarded as out of line with the market.

The proposal has met with stiff opposition from some banks, however.

There is a continuing dearth of new deals in the market, although besides the $500m loan package for Greece, last week also saw the revival of a $20m credit for the Sines development authority in Portugal.

EUROBONDS

UBS sets a bear trap for unwary underwriters

BY MARY ANN SIEGHART IN LONDON

A STRANGE thing happened in the Eurodollar bond market last week. A floating rate note from Fiat, the carmaker, which by all accounts should have been difficult to sell – even at a substantial discount – suddenly shot up to a price over par.

The reason was that lead manager UBS Securities had set a "bear trap", in the words of Mr Armin Mattle, its managing director. Those underwriters who had sold bonds in the expectation of being landed with a huge allotment were told on Thursday night that they were to receive no bonds at all before July, at which time they could buy them from the lead manager at a price of 99.

But that was little consolation to those who had to deliver bonds to their buyers. They now have either to buy the few left in the market at an exorbitant price of about 100½, or they have to persuade the buyers to wait for four months for the bonds.

UBS is sitting on more than $10m of the $100m issue and it has apparently come to an agreement with its managers that they are to sell no bonds to the market for delivery before July.

Other banks are understandably unhappy about UBS's behaviour. As one banker said: "You mess up all your underwriters by inviting them into a lousy deal in the first place and then you lead them up the garden path by not giving them any bonds."

Bankers have to admit, however, that Mr Mattle is perfectly within his rights. During the selling period he refused to give underwriters "protection" by confirming in advance what percentage of their underwriting commitment they would receive. And Mr Mattle claims that the underwriters are at fault for dumping the bonds in the first place.

Credit Suisse First Boston performed a mammoth feat of syndicate organisation last week in its $800m convertible for Texaco, which was over four times the size of the previous record-breaker, Fujitsu's $180m deal.

CSFB realised that having a small group of lead managers and lots of co-managers would not be enough to make such a large deal work, so they organised it more along the lines of a globally syndicated loan.

CSFB, Goldman Sachs and Morgan Stanley were nominated as the three "co-ordinators" with CSFB as "global book-runner." Then four regional groups were set up, each with their own lead managers. CSFB, SBC and UBS are selling $300m in Switzerland, Nomura International has $75m for the Far East, Deutsche Bank is placing $125m in Germany, and Morgan Stanley, Goldman Sachs and CSFB have $300m for the rest of the world. Each of these lead management groups is free to form their own syndicates.

By Friday about a third of the issue had been sold and though the lead managers were trying to keep the price no lower than 98½ there were some bonds in the market at a greater discount.

Another talking point last week was the issue of two bonds from U.S. savings and loan (S&L) institutions backed by collateral of a portfolio of securities held by the S&L to give the deals a triple-A credit rating.

Salomon Brothers launched the first, a five-year bond for the American S&L Association, with 150 per cent collateral provided by securities from the Government National Mortgage Association (Ginnie Mae), which have the "full faith and credit" pledge of the U.S. Government. The issue was so popular it was increased from $100m to $125m.

Goldman Sachs followed this with a $100m bond on the same terms for North East Savings. This too was well-received, trading within its selling concession at a 1 point discount.

While a 1 point discount may normally be considered no more than respectable, it is not far short of miraculous in present market conditions. The fixed-rate dollar primary market has been unreceptive to new issues.

In the secondary market, however, prices rose slightly on the week, not through any great buying pressure, but possibly due to a feeling among professionals that having fallen four points in as many weeks, the benchmark U.S. Treasury long bond must recover a bit of steam.

The sterling market, meanwhile, is steaming ahead, helped by a base rate cut and a budget forecasting low inflation.

NEW INTERNATIONAL BOND ISSUES

Borrowers	Amount m.	Maturity	Av. life years	Coupon %	Price	Lead Manager	Offer yield %
U.S. DOLLARS							
Nippon Mining ¶‡	50	1989	5	6¾	100	Nikko Secs., IBJ Intl.	6.750
Sumitomo Constr. ¶	20	1989	5	7½	100	Nikko Secs., Sumitomo Fin., Daiwa Europe	
Cent. Landesbank †(a)‡	100	1999	15	⅛	100	CSFB, SG Warburg	–
Fiat Finance †‡	100	1994	10	¼	100	UBS Secs.	–
Mtge. Bk. of Denmark †(b)‡	125	1999	15	⅛	100	Mgn. Stanley, Goldman Sachs	–
Yokohama Auto †(a)‡	100	1994	10	⅛	100	Citicorp Intl., CSFB, SBCI, Yokohama Asia	–
Lloyds Bank †(c)‡	250	2004	10	⅛	100	LBI	–
Bk. of Greece †‡	150	1994	10	¼	100	Mgn. Guaranty, Bk. of Tokyo, UBS Secs.	–
South Africa †‡	75	1989	5	3/16	100	Dresdner Bank, Sedltic (Jersey), Paribas	–
Wells Fargo †(b)‡	50	1996	12	1/16	100	Mgn. Stanley, Goldman Sachs	–
TWO Power Co. †(b)‡	100	2004	20	⅛	100	Mgn. Stanley, Manufrs. Hanover	–
Yasuda Tst. & Bkng. ‡	100	1989	5	12¾	100	Salomon Bros., Yasuda Tst., Bk. of Tokyo Intl.	12.375
Am. Savings & Loan Assoc. ‡	125	1989	5	12	100	Salomon Bros., Bear Stearns Intl., CSFB	12.000
N. E. Savings ‡	100	1989	5	12	100	Goldman Sachs	12.000
Texaco §	800	1994	10	11½/¾	100	CSFB, Goldman Sachs, Mgn. Stanley	*
CANADIAN DOLLARS							
American Hospital Supply ‡	50	1994	8	12¾	100	Wood Gundy	12.375
City of Vancouver ‡	30	1994	10	13	100	CCF, Domin. Secs. Ames	13.000
D-MARKS							
Kansai Paint ¶	50	1989	5	3½	*	Commerzbank	*
SWISS FRANCS							
Michiyo Corpn. **§‡	50	1989	–	2¼	100	CS	2.125
Nicoh **§‡	100	1989	–	1¾	100	UBS	1.750
SWISS FRANCS							
Fuji & Co. **§‡	20	1989	–	2⅛	100	Mgn. Grenfell en Suisse	2.125
Dainippon Ink **§‡	100	1989	–	1¾	100	CS	1.750
IADB ‡	100	1996	–	6	100	SBC	6.000
Lundo Intl. ‡	800?	1994	–	6⅜	100	Kredietbank Suisse	6.375
Commerzbank §‡	100	1994	–	6	–	UBS	6.000
EDC §‡	100	1992	–	6¼	–	SBC	6.250
Household Fin. §‡	100	1994	–	7⅛	–	Paribas Suisse	7.125
Xerox C**‡	100	1991	–	6	–	CS	6.000
TransCanada Pipeline ‡	100	1992	–	5½	100	UBS	5.500
Austr. & N. Z. Bkng. **‡	45	1991	–	5⅝	100¼	CS	5.581
Kao Corpn. **§	150	1989	–	2	100	SBC	*
STERLING							
Bico *‡	30	1989	5	5¼	100	Kleinwort Benson	5.250
American Express ‡	30	1989	5	10¾	100	Mgn. Grenfell, Shearson/AmEx	10.750
Forsmarks Kraftgrupp ×‡	40	1999	15	10⅝	100	Samuel Montagu	10.625
GUILDERS							
Mtge. Bk. of Denmark	100	1994	8	9	*	Amro Bank	*
NOR. KRONER							
Scand. Air. System	200	1991	7	11¾	*	Christiania Bank	*
ECUs							
GTE Fin. ‡	50	1992	8	10¾	100	Soc. Gen. de Bque., Kredietbank Intl., Orion Royal Bank	10.875
YEN							
Manitoba Prov. ‡	15bn	1994	9	7.5	100	Nikko Secs.	7.841

* Not yet priced. ‡ Final terms. ** Placement. § Convertible. † Floating rate note: coupon is spread over 6-month Libor. (a) Spread over mean of 6-month bid and offered rates. (b) Spread over 3-month Libor. ¶ With warrants. ∥ Dual currency issue repayable in dollars. × Coupon set every 5 years. Ø Minimum. Note: Yields are calculated on AIBD basis.

INTERNATIONAL CAPITAL MARKETS AND COMPANIES

U.S. BONDS

Credit market sees deficit cut plan as false dawn

AFTER A brief flicker of life late on Thursday following better than expected M1 figure and news from the White House of an agreement with Republican Congressional leaders on a $150bn three-year deficit cutting package, bond prices had plunged to new lows by the close on Friday.

While the equity market rallied strongly in hectic Friday trading, the credit markets took another—and deeper—look at what was on offer and found it lacking.

Short-term interest rates were again on the rise, leading to talk of an impending prime rate increase. Another rash of extremely strong economic indicators sustained credit market jitters.

U.S. INTEREST RATES (%)

	Week to Mar 16	Week to Mar 8
Fed funds weekly average	9.92	9.74
3-month CD's	10.06	9.88
3-month T-Bills	9.55	9.36
30-year Treasury Bond	12.45	12.35
AAA Utility	13.50	13.25
AA Industrial	13.35	13.13

Source: FT estimates

In the week ending March 5 M1 fell by $1.4bn to $532bn.

The credit market had already made up its mind that the Reagan decit package was a false dawn when Dr Henry Kaufman, Salomon Brothers' chief economist, hammered the message home in his Weekly Comments on Credit, headlining them "False Hope." The market all but fell out of bed.

Dr Kaufman, like other senior Wall Street economists, pointed out that while the deficit cutting proposal—and without Democrat approval it remains just that—calls for a $150bn reduction spanning fiscal 1985-87, the vast majority of these reductions would fall in the last two fiscal years, with only $25bn slated for fiscal 1985.

What is more, Wall Street estimates that after allowing for cuts already included in the President's Budget the "real" package may be worth less than $100bn with a mere $11bn falling in fiscal 1985.

Indeed some economists go further suggesting that a package structured in this way could actually be counterproductive.

The monetary and fiscal policy imbalance, inflationary fears, the pace of the U.S. economic recovery and the Fed's response remain the primary concerns in the U.S. credit markets. While the smaller than expected 0.4 per cent February increase in the producer price index calmed some Wall Street fears, bond market participants are focusing on the longer term—and that does not look so good.

The stream of economic statistics published last week—including a hefty 1.2 per cent increase in industrial production last month, the strong advance in housing starts and an uncomfortable 80.7 per cent capacity utilisation number—all served to underline market concerns ahead of the policy making Federal Open Market Committee meeting next week.

Last week's money supply numbers, including the monthly M2 and M3 figures, were mostly better than expected and left all three money measures within their target ranges. But the market believes the FOMC will focus attention on the economy. With the first quarter "flash" GNP figure due out tomorrow and expected to show at least a 6 per cent annualised rate of growth the credit markets are taking no chances.

The sharp upward movement in money market rates effectively discounts a Fed firming move but could also be used as the "excuse" for such a move. While the recent increase in the Fed funds rate (which soared above 10 per cent for part of last week) can be partly explained by technical factors like the March 15 tax date, other short term rates have also moved sharply higher.

Last aweek short-term rates gained a further 10 to 20 basis points with the three-month T-bill rate climbing to 9.55 per cent at the close and the three-month CD rate topping 10 per cent, leading to heightened speculation about an increase in the current 11 per cent prime rate.

Long-term rates also continue to move upwards. After the late Thursday downwards "blip" the key Treasury long bond closed at 96$\frac{11}{32}$ on Friday, a decline of half a point on the day

Paul Taylor

Loews buys 2.7m shares in St Regis for $100m

BY WILLIAM HALL IN NEW YORK

LOEWS, the U.S. hotels, cigarettes and insurance group, has paid about $100m for an 8.5 per cent stake in St Regis, reviving speculation that the U.S. forest products company is ripe for take-over.

The surprise news that Loews had acquired 2.7m St Regis shares comes only days after St Regis rid itself of a potentially dissident shareholder group by repurchasing an 8.6 per cent stake in the company from an investor group led by Sir James Goldsmith, the financier.

The investors made a profit of about $50m but in return agreed not to purchase or own any securities of St Regis.

After the deal, which committed St Regis to buying back its shares at $52 each, St Regis's share price dropped by more than $3 to $37. Loews bought its shares at prices ranging from $36½ to $37¼ between February 21 and March 12.

Mr William Haselton, St Regis's chairman and chief executive, said he had learned of the stake after a conversation with Mr Laurence Tisch, Loew's chairman. Mr Tisch had indicated that the purchase was "solely for investment."

Mr Haselton said: "We are most aware of Tisch's reputation as an astute investor and a businessman of integrity, and we welcome his interest in our company.

"The performance of St Regis is presently improving even more than the economy, and we continue to anticipate increased earnings in the current quarter and the rest of 1984."

Loew's interests range from hotels and cigarettes to insurance and Bulova watches. The Tisch family controls about 40 per cent of the shares.

Hudson's Bay reduces loss

By Robert Gibbens in Montreal

HUDSON'S BAY Company, Canada's largest merchandising group which is controlled by Thomson family interests, reports an operating loss of C$17.9m (US$14m) for the year ended January 31, against a loss of C$122m in the previous year. The per share deficit fell from C$5.63 to C$1.63.

The latest period excludes a C$82.8m gain on the sale of investments in Dome Resources and Simpsons-Sears. After the gains the final net income was C$64.9m or C$1.86 a share.

Revenues rose by 5.6 per cent to $4.4bn. Merchandising activities, including Bay Stores and Simpsons, showed a profit of C$59.9m against C$22m.

Hudson's Bay said it expected earnings to continue to improve this year.

Dow Chemical completes transfer of Banking stake

BY JOHN WICKS IN ZURICH

DOW CHEMICAL, the second biggest U.S. chemical company, has completed the transfer of its 76 per cent stake in Dow Banking, of Zurich, to a special holding company.

The transaction, heralded in January, represents a move by Dow Chemical to strength its position in international finance. The majority shareholding in the Zurich bank will pass from Dow Chemical to the Delaware-registered Dow Financial Services. This stake is valued at about SwFr 210m ($100m).

Dow Financial Services will pay Dow Banking a total of about SwFr 34m in cash for a number of holdings in other companies. This includes sums of SwFr 15m for Dow Banking's 44 per cent shareholding in Dow-Scandia Holdings of London. A further 8 per cent owned by an employee trust will also go to the Delaware company in a separate transaction.

Dow Banking will continue its operations in Zurich, specialising in portfolio management and Swiss franc lending business. It will also continue to own all of Dow Bank Overseas, of Grand Cayman, and the remaining 15 per cent stake in Dow MBF.

The new Dow Financial Services, which will have an initial capitalisation of SwFr 244m, will be managed in London. Its chief executive officer will be Mr Leslie Merszei.

Banco di Roma well ahead

By Alan Friedman in Milan

BANCO DI ROMA, Italy's fifth largest bank and one of the top three banks controlled by the IRI state holding group, reported a 17 per cent rise in net profits for 1983, to L34.6bn ($21.3m).

The increase represents a recovery for the bank, which in 1982 saw its net earnings drop by 6.3 per cent to L29.6bn.

The Rome-based bank, which has 240 branches in Italy, said its loan book totalled L25,700bn at year end, up 19 per cent on 1982. Total deposits rose 17.3 per cent to L33,691bn.

Banco di Roma, along with the two other major IRI banks—Credito Italiano and Banca Commerciale Italiana—plans to double the size of its capital to L280bn in the near future. The exercise, which follows years of complaints about the Italian banking system being chronically undercapitalised, will be funded principally by IRI.

● Chase Manhattan, the third largest U.S. bank, had $6.14bn in loans to problem Latin American countries at the end of 1983, according to its annual report, one of the first to be published since tougher U.S. rules on foreign lending disclosure came into effect last year.

This amounts to about 7.5 per cent of Chase's total assets, writes David Lascelles, Banking Correspondent.

The loans comprise $2.56bn to Brazil, $1.55bn to Mexico, $1.23bn to Venezuela and $800m to Argentina. Except for Venezuela, each represents a smal increase on 1982.

Slight recovery for Swire Properties

BY ROBERT COTTRELL IN HONG KONG

SWIRE PROPERTIES, the Hong Kong property developer which is a quoted subsidiary of the Swire Pacific group, has announced net profits for 1983 of HK$330.4m (US$42.4m), up 4.6 per cent from HK$316m in 1982. A final dividend of 32 cents maintains a total distribution of 49 cents for the year.

The increase in profits follows a 61 per cent decline in 1982. The 1983 earnings come after a HK$80m provision for possible losses from a development to be completed in 1987. Turnover rose 28 per cent to HK$1.4bn.

International City Holdings, another Hong Kong property company, has reported net profits for 1983 of HK$73m, after making a provision of HK110.3m against a fall in the value of its landbank. For 1982, ICH reported a net profit of HK$119.6m after a provision of HK$17m.

ICH, an associate of the Cheung Kong group, confirmed that it had entered a "preliminary agreement" to sell eight blocks of flats due to be completed in 1985. The buyer, for HK$1bn is expected to be the Peking-affiliated Everbright Industrial company.

ICH is maintaining its final dividend at 1.5 cents, making 3 cents for the year.

Hopewell Holdings, a third local property company, has reported net profit of HK$26m for the six months ended December, compared with HK$12.7m. The interim dividend is maintained at 2 cents per share.

Meanwhile, Hang Lung Development raised net profits for the six months ended December to HK$58m against HK$32.6m. The interim dividend is maintained at 7 cents per share.

New range will benefit Daimler heavy truck plant

BY KENNETH GOODING, MOTOR INDUSTRY CORRESPONDENT

DAIMLER-BENZ, the West German vehicle manufacturer, expects its total commercial vehicle production this year to remain close to the 173,500 units for 1983. But output at the heavy truck plant at Woerth in West Germany would fall again, says Professor Werner Breitschwerdt, chairman.

However, the plant would benefit from the introduction of a range of medium trucks, from 6.5 to 11 tonnes gross weight, which the company is launching in West Germany this week. The new range, in which the company invested well over DM 280m, will replace the Mercedes LP trucks.

Last year 20,000 LP trucks were produced. Prof Breitschwerdt says 25,000 of the new medium weight vehicles would be produced each year when output reached full capacity. They will mainly be sold in Western Europe.

INTERNATIONAL APPOINTMENTS

Lloyds Bank International eastern posts

The following appointments have been made within LLOYDS BANK INTERNATIONAL: Mr D. Hamilton has been appointed manager, Alexandria branch, following the retirement of Mr R. McWatt. Mr K. E. Hughes has been appointed manager of the Zamalek branch, Cairo, where he was assistant manager, business development. Mr J. R. Eggleshaw has been appointed representative, Lloyds Bank International, for India, Sri Lanka, Nepal and Bangladesh, based in New Delhi. He was branch manager and state manager, Western Australia, Lloyds International, Perth. Mr D. J. Hutchinson has been appointed manager, Manila branch, the Philippines. He was regional manager, Latin America division, head office, London. Mr J. R. Frew, previously manager, Manila branch, has been appointed manager of the Seoul branch, Korea.

● Mr Cafer Okray has been appointed MIDLAND BANK INTERNATIONAL's adviser for Turkey, based in Ankara—the first Midland appointment in that country. He was adviser to Banca Commerciale Italiana.

● Mr Stephen D. Hofflich has been named vice-president, information systems of SATELLITE TELEVISION CORP. He will be responsible for designing and implementing the computer systems that STC will use in its direct broadcast satellite operation, and will also establish STC's customer billing and collection systems.

● Mr Ernesto Gerarde Mata has left the Banco de Bilbao to join the COMPANY UNION ELECTRICA-FENOSA, where he has been appointed financial general secretary joint chairman of the board.

● Mr Ian M. Mills, recently joined the BANK OF NEW ZEALAND, head office, Wellington, as foreign exchange manager (network operations), and Mr Michael Coraford has been appointed manager foreign exchange and treasury, Singapore branch.

● Dr Adolf Gugler is to suceed Dr Hans Bergmaier as management chairman of ELEKTROWATT, Zurich, on October 4. Dr Rudolf Boesch, currently deputy management chairman of the civil engineering subsidiary Elektrowatt Ingenieurunternehmung, will succeed Dr Gugler as a manager of the parent company. In spring, 1985, Dr David Syz, management chairman of the subsidiaries Cerberus and Staefa Control, is to succeed Dr Hans Rudolf Niggli as a parent-company manager.

● Mr Urs Buehler, management chairman of Buehler-Maig, Brunswick, West Germany, has been appointed deputy management chairman of the Swiss parent company GEBRUEDER Buehler, of Uzwil. In a year's time Dr Frank Vischer will succeed Dr Rene Buehler as chairman of the Swiss company. Mr Hanspeter Buehler will then become deputy chairman and Mr Urs Buehler a member of the board committee. Mr Max Buehler, recently appointed head of the Japanese subsidiary, will join the parent company's board, also in January, 1985.

● Mr Erik H Thøke, managing director of PLM Haustrup, Odense, Denmark, has been appointed vice-managing director of PLM AB and member of the group management. He will maintain his present tasks as managing director of A/S Haustrup Holding and A/S Haustrup's Fabriker.

FT INTERNATIONAL BOND SERVICE

U.S. DOLLAR STRAIGHTS

	Issued	Bid	Offer	Change on day	Change on week	Yield
Alaska Housing 11¾ 94	100	97¼	97¾	+0¼	+0¼	12.19
Australia Com. 11¾ 90	100	99¾	100	+0¼	+0¼	11.27
Australia Com. 11½ 95	300	94⅞	95¼	+0¼	+0¼	12.28
[illegible]						

YEN STRAIGHTS — [illegible]

OTHER STRAIGHTS — [illegible]

FLOATING RATE NOTES — [illegible]

DEUTSCHE MARK STRAIGHTS — [illegible]

CONVERTIBLE BONDS — [illegible]

SWISS FRANC STRAIGHTS — [illegible]

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EUROBOND TURNOVER
(nominal value in $m)

	Cedel	Euro-clear
U.S. $ bonds		
Last week	7,821.6	15,449.3
Previous week	6,332.4	14,133.5
Other bonds		
Last week	1,491.6	1,274.7
Previous week	1,519.6	1,144.7

* No information available—previous day's price.

† Only one market maker supplied a price.

STRAIGHT BONDS: The yield is the yield to redemption of the mid-price; the amount issued is in millions of currency units except for Yen bonds where it is in billions. Change on week=Change over price a week earlier.

FLOATING RATE NOTES: Denominated in dollars unless otherwise indicated. Coupon shown is minimum. C.dte=Date next coupon becomes effective. Spread=Margin above six-month offered rate (‡ three-month; § above mean rate) for U.S. dollars. C.cpn=The current coupon. C.yld=The current yield.

CONVERTIBLE BONDS: Denominated in dollars unless otherwise indicated. Chg. day=Change on day. Cnv. date=First date for conversion into shares. Cnv. price=Nominal amount of bond per share expressed in currency of share at conversion rate fixed at issue. Prem=Percentage premium of the current effective price of acquiring shares via the bond over the most recent price of the shares.

The list shows the 200 latest international bonds for which an adequate secondary market exists. The prices over the past week were supplied by: Kredietbank NV; Credit Commercial de France; Credit Lyonnais; Commerzbank AG; Deutsche Bank AG; Westdeutsche Landesbank Girozentrale; Banque Generale du Luxembourg SA; Banque Internationale Luxembourg; Kredietbank Luxembourg; Algemene Bank Nederland NV; Pierson, Heldring and Pierson; Credit Suisse/Swiss Credit Bank; Union Bank of Switzerland; Akroyd and Smithers; Bank of Tokyo International; Blyth, Eastman, Paine, Webber International; Chase Manhattan; Citicorp International Bank; Credit Commercial de France (Securities) London; Daiwa Europe NV; EBC; First Chicago; Goldman Sachs International Corporation; Hambros Bank; IBJ International; Kidder Peabody International; Merrill Lynch; Morgan Stanley International; Nomura International; Orion Royal Bank; Robert Fleming and Co.; Samuel Montagu and Co.; Scandinavian Bank; Societe Generale Strauss Turnbull; Sumitomo Finance International; S. G. Warburg and Co.; Swiss Bank Corporation International; Wood Gundy.

Closing prices on March 16

UK COMPANY NEWS

Offer for sale puts £14m valuation on Connells

BY ALISON HOGAN

HOME COUNTIES based estate agents Connells is being brought to a full listing on the Stock Exchange by Kleinwort, Benson through the offer for sale of just over 3m shares at 120p per share which prices the company at £13.8m.

The company has 29 offices in seven counties specialising mainly in residential property though it has a significant commercial division which accounted for around 17 per cent of the income in 1983. The residential side is complemented by a mortgage services department and agencies specialising in residential land and new homes sales.

Most of the shares being offered are coming from institutional investors, Investors in Industry and EDITH, and a smaller proportion from Constantine Group, a private company with property interests whose stake will reduce to around 60 per cent after the offer.

New shares will raise approximately £275,000 for the company, mainly to cover costs as Connells does not need extra funding.

Connells has built up a network of offices and staff over the past five years, with pre-tax profits really taking off in 1982 when they rose from £357,000 to £1.08m. In the year to December 1983 it made profits of £1.51m on turnover of £5.16m.

The company expects to expand in the future largely by acquisition and feels a quotation will improve its status and ability to effect such takeovers.

The two divisions are operated separately with staff receiving performance related bonuses.

Connells has had a marked increase in activity in the first months of 1984 with a record number of instructions and sales agreed. It expects to do particularly well in the sale of new homes in 1984.

The company has an almost full tax charge which at the offer for sale price of 120p per ordinary 5p share, gives a P/E of 18.5 times and a yield of 3.3 per cent.

L. Messel are brokers to the issue. Applications should be sent to National Westminster Bank New Issues Department to arrive not later than 10 am Thursday March 22. Dealings are expected to commence on Thursday March 29.

● comment

With record instructions and sales in the first couple of months, Connells could ask for no better background to its launch on the market than a budget which reduces stamp duty and a decision by the Building Societies Association to cut mortgage rates by 1 per cent. And of course it pays a full tax charge so the reduction in corporation tax will help profits too. A disappointing year in 1980 highlights the company's vulnerability to the property buying market and if, or when, interest rates creep back up again or house prices stagnate then the bottom line will suffer. By the time such a downturn arrives the whole conveyancing scene may have changed quite drastically and a link up if not a takeover by the building society could be on the cards. Meanwhile the offer is carefully priced with an eye to Bairstow Eve's the only other publicly quoted estate agent and should prove popular with a market which appears to be greedy for fixed price offers at the moment.

Robertson Research full listing

Robertson Research, which provides geological and engineering services to the international petroleum, minerals and coal industries, is coming to the market for a full listing to further its prospects of expansion and growth.

S. G. Warburg and Grieveson Grant are advising the company, which will have a market value of £19.6m at the fixed price offer for sale of 2.56m shares at 160p per share.

The company will have a prospective P/E of 17.7 times at the offer for sale price based on a pre-tax profits forecast of not less than £1.7m for the year to March, 1984.

The company has grown steadily over the past five years except for a profits dip in 1982 when there was a sudden collapse in the U.S. oil market. The company says it is now broader based both geographically and in the services it provides, so that it should not be so vulnerable to any downturn from one sector of the natural resources business.

The 665 staff are headed by Dr Robert Cummings, a former geology lecturer from Glasgow University, Dr William McBrown, a former petroleum geologist at Shell and Dr Roy Bichan, a geologist and leading member of the Institute of Mining and Metallurgy.

Their work varies from making petroleum potential evaluations for clients, including the World Bank, to geo-physical geo-logging projects in the UK, Africa and the Philippines. The company is based in North Wales and has subsidiaries in North America, Singapore and Australia.

It plans to develop its petroleum services in new areas, including Africa and offshore China. It will also build up its relatively new wireline-logging business. The company is raising £1m in new money to assist in financing the additional working capital needed to take on the larger contracts it is winning.

After the offer for sale of 20.9 per cent of the equity, some 80 directors and employees will hold approximately 30 per cent of the enlarged capital and SNC Group, a Canadian group engaged in engineering design, procurement and construction will have approximately 29 per cent.

Applications should be sent to the Bank of Scotland New Issues Department by Thursday, March 22. Dealings are expected to begin on March 29, the day after letters of acceptance are despatched.

● comment

Robertson Research is essentially a people business and has built up a formidable team of geologists, geophysicists and other experts to provide a wide range of consultancy services. Capital investment has been higher more recently, particularly with the expensive move into wireline-logging which cost some £850,000 over a couple of years. The directors expect to maintain high levels of R & D to keep at the forefront of technological developments, but it is still a small proportion of turnover, which was £14.9m last year. The smaller than usual offer of just below 21 per cent of equity means less to go round for prospective investors. The company has no close comparison on the stock market against which to match the prospective P/E of nearly 18, but in the present market it should be well received.

FINANCIAL TIMES STOCK INDICES

	Mar. 16	Mar. 15	Mar. 14	Mar. 13	Mar. 12	Mar. 9	1983/84 High	1983/84 Low	Since Compilat'n High	Since Compilat'n Low
Government Secs.	83.33	83.12	83.43	83.50	83.43	83.14	83.77	77.00	127.4	49.18
Fixed Interest	87.15	87.16	87.48	87.46	87.28	87.14	87.48	79.03	150.4	50.53
Industrial Ord	894.5	875.5	864.8	865.0	844.1	840.9	894.3	596.4	894.3	49.4
Gold Mines	668.4	688.9	703.1	693.4	697.9	711.7	734.7	444.6	734.7	43.5
FT-Act. All-Share	528.89	518.74	513.74	510.98	503.64	501.35	528.89	382.22	528.89	61.92
FT-SE 100	1128.5	1101.1	1087.7	1082.5	1063.8	1060.1	1128.5	997.5	1128.5	997.5

● Mark Meredith looks at James River's first step into paper markets outside the U.S.

Flowing into European waters

James River, fast becoming one of the largest paper companies in the U.S., has made its first exploratory step into the European market.

This past week it accumulated a majority shareholding of 62.7 per cent in GB Papers, a small and independent producer of specialist paper products based at Guardbridge, near St Andrews in Fife.

It still hopes to gain the rest of the shares in a takeover bid worth £5.45m.

GB's directors and its merchant bank, Noble Grossart, have recommended the takeover. The Scottish company's balance sheet is looking better but only after a very troubled past. A scheduled rise in pulp prices in April and again in the summer—making a comeback with demand recovery—could well wipe out the £1.65m profits forecast for the year to the end of this month.

James River sees the purchase of GB Papers as a reconnaissance mission into Europe.

The EEC puts a 9.5 per cent import duty on paper imported into the Community, giving a further incentive for an American producer to set up a base within the EEC.

"We have no real international experience," said Mr Brent Halsey, one of the co-founders of James River. "This is a small risk operation which will allow us to get our feet wet in the European market. It can be a base to explore other opportunities inside the Common Market."

James River is now among the top ten paper producers in the U.S. Its strength has been in the specialist paper market for products like paper cups and plates as well as bathroom and sanitary products and packaging. The year's sales to April 1983 amounted to $1.6bn, compared with $300m in 1979. Pre-tax profits last year were $94.7m, net income has grown from $14.7m in 1979 to $55.1m.

GB Papers is about one-tenth the size of some of the UK's large producers like Bowaters or Wiggins Teape. Like the dwindling number of independent and non-integrated British paper companies (companies which do not make their own pulp), it has moved into highly specialised product areas of the printings and writings sector which are less attractive to big volume producers. GB makes high grade writing paper including a popular line of paper carrying the logo of companies as a watermark.

Not only the corporate heavies but also an estimated 60 per cent import penetration has made this a difficult field for British producers.

GB also operates a second mill at Milkenpark, west of Glasgow, again with highly specialised products such as computer printer paper and self-adhesive labels.

Part of the turnaround at GB since 1980 involved the shutting of a third mill near Aberdeen which had been producing paper board at a heavy cost and accounted for about two-thirds of company losses.

The company that year recruited Mr John Dick, a former ICI executive, who the company credits with the considerable improvement in the company's performance. Losses of £1.7m the year ending March 1981 were reduced to a loss of £153,000 the following year and a profit of £533,000 in the year ending March 1983.

The Culter Mill, near Aberdeen, was closed and sold off, energy savings brought in cutting costs by 15 per cent and a modest capital spending programme brought in to begin to install computerised controls.

Most important, Dick and GB management simplified the product range to cut out loss-makers. According to Mr Dick, the combination of pulp price increases and the need for further capital investment in computerised controls made GB vulnerable.

"Who is going to invest in a company that paid a dividend totalling five pence over five years," Mr Dick said.

"Producers were able to pass the first pulp price increase late last year on to clients, but the grumbles were starting over increases set off by the next round of higher pulp prices," he added.

GB executives made contact with James River on a regular management tour of paper companies in North America which led to the American company taking an interest, according to Mr Dick.

There is little overlap in the products produced by either James River or GB Papers, according to Brent Halsey. Some GB products will be distributed in the U.S. and the Fife company will bring in some new lines and technology transfers from James River.

Formdesign forecasts £330,000

Formdesign, a West Midlands-based manufacturer of business forms and computer stationery, today announces details of its entry to the Unlisted Securities Market.

Brokers Albert E. Sharpe are placing 625,000 shares, 25 per cent of the equity, at 114p per share. At that price, Formdesign is valued at £2.85m.

The company is forecasting a 56 per cent increase in pre-tax profits to £330,000 for the year to the end of March, which puts the shares on a multiple of nine, assuming an estimated 45 per cent tax charge.

If Formdesign's shares had been dealt in on the USM during the year of the forecast, the directors would have recommended a total net dividend of 3.65p, which would give a yield of 4.6 per cent and be covered three times by estimated actual tax earnings of 12.6p per share. They expect to pay an interim dividend of 1.4p net in July.

The shares are being sold by the chairman, Mr John Smith, who founded the company in 1965 and taken a non-executive role since 1981 due to ill-health. Following the placing, he will hold 57 per cent of the equity, which at the placing price is worth £1.6m.

Dealings in the shares are expected to commence on March 23.

Lancashire & London

Net asset value per 25p share of Lancashire and London Investment Trust increased from 116.9p to 161.2p at the year ended December 31, 1983. The dividend is unchanged at 2.875p net.

After tax of £60,207, compared with £53,899, earnings came through slightly down at £116,645, against £120,619.

Franked investment income increased from £145,681 to £172,745, unfranked totalled £16,446 (£15,155), and dividend from a subsidiary was £16,714 (nil). Net bank interest and other income amounted to £2,350 (£49,322) while management and other charges took £31,403 (£25,640).

F.T. Share Service

The following securities have been added to the FT Share Information Service:

SeaCo Inc (Section: Leisure)

Unibond (Holdings) (Industrials)

BOARD MEETINGS

The following companies have notified dates of board meetings to the Stock Exchange. Such meetings are usually held for the purpose of considering *dividends. Official indications are not* available as to whether the dividends are interims or finals and the subdivisions shown below are based mainly on last year's timetable.

TODAY

Interims: Epicure, G. F. Lovell, R. P. Martin, New Cavendish Estates.

Finals: Arncliffe, Edinburgh Fund Managers, Leopold Joseph Sterling Fund, Michael Page Partnership, Sale Tilney, H. Woodward.

FUTURE DATES

Interims—

Anglo-African Finance	Apr 3
Arbuthnot Dollar Income Trust	Mar 22
Arbuthnot Govt. Securities Tst.	Mar 22
Baltic Leasing	Mar 27
Bridport-Gundry	Mar 23
Charterhall	Mar 21
Kent (M. P.)	Mar 30
Park Place Investments	Mar 29
Sanderson Murray and Elder	Mar 23
Tyzack (W.) Sons and Turner	Mar 28

Finals—

A.C. Cars	Mar 29
A.P.V.	Apr 12
American Trust	Mar 27
Aurora	Mar 28
Bemrose	Mar 27
Botswana RST	Mar 22
Forward Technology Industs.	Mar 28
Garton Engineering	Mar 22
Johnson and Jorgensen Packaging	Apr 12
Johnson Group Cleaners	Mar 27
North British Canadian Invest.	Apr 5
Parambe	Mar 27
Ratork	Mar 28
Vectis Stone	Mar 28

RECENT ISSUES

EQUITIES

Issue price	Amount paid up	Latest Renunc. date	1983/84 High	1983/84 Low	Stock	Closing price	+ or −	Net Div.	Times Covered	Gross Yield	P.E. Ratio
55	F.P.	—	42	14½	Aberfoyle Hldgs. 5p	38½	+½	—	—	—	—
[illegible]	F.P.	—	150	143	‡Brint Invs. £1	148	+3	—	—	—	—
§155	F.P.	27/4	182	166	Burmatex 10p	172	+6	b5.0	1.9	4.2	17.8
*93	F.P.	2/3	260	160	‡CML Mic'stems 10p	260	+3	b1.4	3.4	0.8	55.3
§57	F.P.	—	205	155	‡CPS Computer 20p	175	+5	u1.0	3.5	0.8	54.2
35	F.P.	13/4	25½	23	Cambium Venture 5p	22	.....	—	—	—	—
§162	F.P.	4/4	177	174	‡Donmans Electrical	175	.....	45.5	3.8	8.8	11.3
‖‖	F.P.	—	180	110	‡Dewey Warren 10p	120	.....	—	—	—	14.8
[illegible]	F.P.	—	29	26	Hambros Inv.Tst. War.	27	+1	—	—	—	—
*156	F.P.	17/4	91	83	‡Horne (Robert) 20p	90	+5	u2.46	3.3	3.9	10.8
—	F.P.	—	88	78	Do. N/V 'A' 20p	88	+5	u2.46	3.3	4.0	10.5
§35	F.P.	23/3	42	39	‡Kent (John) 5p	41½	+1	bg1.33	2.2	4.2	15.2
‖	F.P.	10/3	106	76	‡LPA Inds. 10p	75	−2	u2.45	2.5	4.6	12.8
§110	F.P.	3/4	136	129	Morceau Hldgs. 10p	131	.....	bg2.7	2.5	2.9	14.8
‡80	F.P.	4/4	80	59	‡Morgan Comm. 5p	80	+2	bg1.85	1.7	3.3	26.0
§118	F.P.	23/3	200	160	‡Norbain Electro's 5p	186	.....	bd1.0	4.4	0.8	42.1
215	F.P.	27/4	268	253	Our Price 20p	258	+5	bg3.0	3.7	1.7	18.2
*125	F.P.	13/4	278	140	Petranol 10p	276	+10	—	—	—	—
§120	F.P.	15/4	155	140	‡Platon Intl.	165	.....	bg1.84	5.5	1.5	12.9
160	F.P.	—	266	285	‡Powerline Int'l. 5p	243	−7	bg1.4	5.2	0.8	45.0
§60	F.P.	—	70	64	‡Radio Clyde N/V	67	−2	5.0	1.4	8.4	15.6
¶¶	F.P.	—	680	640	Reed Stenh'se Cls. A	655	+10	Q0.60c	—	5.0	—
¶¶	F.P.	—	670	650	Do. Class C	650	+8	Q0.60c	—	5.0	—
§25	F.P.	22/3	27½	23	‡Sangers Photo. 10p	26½	.....	bg1.25	1.8	6.9	12.0
§78	F.P.	—	108	102	‡Scantronic 2½p	108	.....	bg1.6	2.0	2.1	26.2
—	F.P.	—	64½	52	Shires Ivn. Warrants	61	.....	—	—	—	—
§60	F.P.	9/3	54	44	‡Xyllyx 10p	45	−1	—	—	—	—

FIXED INTEREST STOCKS

Issue price £	Amount paid up	Latest Renunc. date	1983/84 High	1983/84 Low	Stock	Closing price	+ or −
97.218	£25	24/7	22¼	26	Asian Dev. Bk. 10¼% Ln. 2009	28½	+½
¶¶	F.P.	—	105½p	102p	Barlag Bros. 7½% Cum. Prf. £1	102p	−3
97.672	£25	1/7	28⅝	25¼	Brixton Est. 11½pc 1st Mort. Deb. 2023	28¼	+½
**	F.P.	30/3	111½p	106p	Bulmer (H.P.) 8½% 2nd Cum. Prf	106p	−1
‖	Nil	6/4	344pm	258pm	ERGO 16½% Uns. Cnv. Db. 1988-21 R12	256pm	−54
99.15	£25	22/3	30½	24¾	Elf (U.K.) 12¾% Uns. Ln. '91	30⅛	+¼
§98.546	F.P.	6/4	100¾	98	Grainger Tst. 11¾% 1st Mort. Deb 2024	100¼	.....
¶¶	F.P.	27/4	108	102¼	Hanson Tst. 8% Cnv. Us. Ln. 2004-09	107	+1
99.719	£50	25/4	35⅜	30	Int. Bk. for Rec. & Dev. 11.5% Ln. 2003	34⅞	+⅞
§95.711	£25	15/5	27¼	24½	MEPC 10¾pc 1st. Mort. Deb. 2024	27¼	+½
¶101	F.P.	14/5	101¼	100¼	Mid-Southern Wtr. 5¼% Red. Prf. 1991	100½	.....
—	F.P.	—	100½	100	Nationwide 10¼% Bds. 28/1/85	100⅛	.....
—	F.P.	—	100½	100	Do. 10½pc 18/2/86	100½	.....
§97.80	£35	12/7	30½	26½	Province de Quebec 12¼% Ln. 2020	30⅜	+½
20.44	£25	13/4	30	25¼	Queens Moat 12% 1st Mort. Deb. 2013	30	.....
¶¶	F.P.	27/4	104	100¾	Scot. Northern Inv. Tst 11½% Rd. Db. 2009	103¾	+¼
99.895	£30	21/5	34⅛	28¾	Spain 12% Ln. 1989	34	+⅛
98.50	£26	11/5	27¼	24⅛	TR City of London 11½pc Deb. 2014	27¼	+⅝

"RIGHTS" OFFERS

Issue price	Amount paid up	Latest Renunc. date	1983/84 High	1983/84 Low	Stock	Closing price	+ or −
56	Nil	26/3	2pm	1½pm	‡Airship Inds. Units†	1½pm	.....
530	Nil	21/5	200pm	128pm	Applied Computer 10p	145pm	.....
A$7.5	Nil	2/5	240pm	215pm	Broken Hill Prop. A$2	228pm	+4
Ir.62p	Nil	—	4½pm	4½pm	Cement-Roadstone	4½pm	.....
—	F.P.	—	265	138	*East Dagga Options*	228	+10
50	F.P.	12/5	61	54	‡Greenwich Cable Comm.	61	+3
90	Nil	—	4pm	3pm	Hawley Group 12½p	3½pm	−½
275	F.P.	2/3	326	307	Higgs & Hill	326	+9
R.60	Nil	25/5	800pm	600pm	Liberty Life R.1	600pm	.....
137	F.P.	8/3	153	150	McCorquodale	163	+1
535	F.P.	14/5	840	745	‡Micro Focus 10p	830	.....
185	F.P.	15/5	211	206½	Newmarket 5c	209	+2
18	Nil	21/3	13pm	11pm	Shealbank Property 10p	13pm	.....
560	F.P.	29/2	594	360	Sketchley	385	+10

PENDING DIVIDENDS

Dates when some of the more important company dividend statements may be expected in the next few weeks are given in the following table. The dates shown are those of last year's announcements except where the forthcoming board meetings (indicated thus*) have been officially notified. Dividends to be declared will not necessarily be at the amounts in the column headed "Announcement last year."

	Date	Announcement last year
Adwest	Apr 15	Interim 2.1
Anglo American Inv Trust	Apr 14	Final 440c
Armstrong Equip	Mar 21	Interim 0.35
Ass Brit Ports	Apr 14	Final due
*Automotive Products	Apr 10	Final nil
*BAT Inds	Mar 28	Final 15.0
BCA	Mar 17	Interim 2.0
*BICC	Mar 21	Final 7.04
BL	Mar 18	Final nil
BPCC	Apr 5	Final 5.01
*Babcock Intl	Mar 28	Final 3.6
Bank of Scotland	Apr 19	Final 13.5
Barrow Hepburn	Apr 20	Final 1.4
Bell (A.)	Mar 23	Interim 2.0
*Bibby (J.)	Mar 20	Final 6.15
Blackwood Hodge	Apr 15	Final nil
Blue Circle Inds	Apr 28	Final 12.25
*Boddingtons' Brews	Mar 20	Final 2.25
*Booker McConnell	Mar 27	Final 2.25
Bowater	Mar 29	Final 3.5
*Brent Chems Intl	Mar 27	Final 1.9
British Aerospace	Mar 29	Final 5.2
*Britoil	Mar 23	Final 3.75
*Brixton Estate	Apr 11	Final 2.3
Brown Boveri Kent	Apr 14	Final nil
Bryant	Apr 11	Interim 1.0
*Bunzl	Apr 2	Final 4.5
Burmah Oil	Apr 13	Final 7.5
*Burton	Mar 20	Interim 3.1
Coates Bros	Apr 6	Final 2.42
Combined English Strs	Apr 19	Final 0.33
*Croda Intl	Mar 29	Final due
Currys	Apr 16	Final 5.75
*DRG	Mar 29	Interim 8.5
*Delta	Mar 27	Final 1.68
Dubilier	Apr 20	Interim 0.8
Dunlop	Apr 21	Final nil
Eastern Produce	Mar 14	Final 3.5
*Exco Intl	Mar 26	Final 3.1
Expamet Intl	Apr 12	Final 2.5
Feb Intnl	Apr 16	Final 1.65
Flight Refuelling	Apr 26	Final 1.9
**Freemans*	*Mar 28*	Final 2.25
Gill and Duffus	Apr 13	Final 4.8
Glaxo	Apr 11	Interim 2.75
*GRE	Apr 4	Final 12.5
Glynwed	Mar 28	Final 4.8
Hambro Life	Apr 19	Final 9.375
Hammerson Prop	Apr 25	Final 10.0
*Harris Queensway	Mar 29	Final 4.0
Hawker Siddeley	Apr 20	Final 6.1
*Hepworth Ceramic	Mar 21	Final 3.35
Higgs & Hill	Apr 13	Final 5.75
Hoover	Feb 17	Final nil
House of Fraser	Apr 28	Final 5.5
*Ibstock Johnsen	*Mar 29*	*Final 3.0*
*Kleinwort Benson	Mar 20	Final 8.0
Kwik Save	Apr 15	Interim 2.3
LWT	Mar 29	Interim 4.494
*Ladbroke	Mar 28	Final 4.3
Laing (J.)	Apr 28	Final 1.875
*Laing Props	Mar 20	Final 3.0
Laporte	Apr 21	Final 5.25
Laird Group	Apr 9	Final 2.1
Legal and General	Mar 30	Final 11.0
*Lex Service	Mar 28	Final 5.0
*Low and Bonar	Mar 26	Final 3.0
*Lucas Inds	Mar 29	Interim 2.5
Menzies (J.)	Apr 28	Final 3.4
Minet	Apr 20	Final 2.1
Morgan Crucible	Apr 14	Final 4.0
NEI	Apr 12	Final 3.25
Newarthill	Apr 14	Final 9.0
Ocean Transport	Mar 23	Final 2.35
*Paterson Zochonis	Mar 20	Interim 1.33
Pearson (S.)	Apr 28	Final 7.45
*Peachey Prop	Mar 20	Interim 2.25
Phoenix Assur	Apr 6	Final 10.2
Pritchard Services	Mar 24	Final 2.1
*Prudential	Mar 28	Final 10.0
Queens Moat Houses	Apr 11	Final 0.605
RMC	Apr 20	Final 8.5
*Reckitt and Colman	Mar 27	Final 6.6
Reed (Austin)	Apr 14	Final 3.5
*Rentokil	Mar 20	Final 2.05
Rio Tinto-Zinc	Apr 14	Final 10.5
*Rockware	Mar 21	Final nil
Ruberoid	Apr 5	Final 4.0
*Rugby Portland Cement	Apr 9	Final 2.9
Samuel Props	Apr 28	Interim 1.43
*Scottish Metro Pro	Apr 5	Interim 1.5
Senior Eng	Apr 8	Final 0.75
Simon Eng	Apr 25	Final 9.25
Slough Ests	Mar 23	Final 2.075
*Smith and Nephew	Mar 20	Final 2.8
Smith (W.H.)	Apr 20	*Final 4.25*
Smiths Inds	Apr 12	Interim 4.0
Standard Chartered Bk	Mar 22	Final 17.8
*Sun Alliance	Apr 4	Final 28.5
Sunlight Service	Apr 29	Final 3.638
Superdrug	Mar 29	*Final due*
Tarmac	Apr 28	Final 7.8
Taylor Woodrow	Apr 14	Final 14.0
Telephone Rentals	Apr 27	Final 3.0
Tricentrol	*Mar 24*	*Final 5.5*
*Turner and Newall	Mar 21	Final nil
*United Newspapers	Mar 22	Final 3.55
Vosper	Mar 29	Final 3.0
*Weir	Mar 28	Final 1.75
Wilson (Connolly)	Apr 13	Final 2.25
**Willis Faber*	Mar 20	Final 12.5
*Wimpey (G.)	Apr 28	Final 2.15

* Board meeting intimated. † Rights issue since made. ‡ Tax free. § Scrip issue since made. ¶ Forecast.

Closing prices March 16

NEW YORK STOCK EXCHANGE COMPOSITE CLOSING PRICES

12 Month High	12 Month Low	Stock	Div.	Yld.	P/E	Sls 100s	High	Low	Close Quote	Ch'ge Prev. Close
20¾	10⅝	AAR	.44	2.3	24	33	19½	19¼	19½	+⅛
52⅞	30½	ACF	1.40	3.0	591	141	47⅞	47⅛	47⅛	+⅛
18⅞	13⅞	AMF	.50	3.6		544	14¼	13¾	14	+⅛
41¼	23⅝	AMR Cp			7	3060	34¼	33¾	33⅞	+¼
20⅞	16⅝	AMR	pf2.18	11.		28	19⅛	18	19	
41½	27⅝	AMR	pf2.13	5.9		893	36	35½	35⅞	+½
26⅛	23⅞	ANR	pf2.67	11.		1	24	24	24	
23⅞	19½	ANR	pf2.12	8.9		4	21½	21½	21½	+¼
16¼	5⅛	APL			3	163	10⅝	9⅞	10⅛	+⅛
55¾	40¼	ARA	2.05	4.6	10	606	44½	44⅛	44⅝	+¼
77¼	60¼	ASA	3e	4.6		712	65⅜	64½	65½	+⅛
33¾	14⅝	AVX	s .32	1.5	22	450	22⅞	22	22	+½
53⅞	39⅝	AbtLab	1.20	2.9	15	2531	42⅞	41⅛	41⅛	-¼
30¼	23⅞	AccoW	n.60	2.3	18	194	25½	25⅞	25⅞	+½
27½	17⅛	AcmeC	.40	1.8		39	22⅞	22	22	
13	8⅝	AcmeE	.32b	3.0	66	16	10⅝	10⅝	10½	
24⅞	12⅝	AdmDg	.04	.3	8	120	14⅞	14⅝	14¼	
18¼	15⅞	AdaEx	2.11e	13.		69	15⅞	15⅝	15¾	-⅛
19¼	7⅞	AdmMl	.28	1.6	8	71	18⅛	18	18	+⅛
22	12¼	AdvSys			13	221	17½	17¼	17¼	+¼
15⅝	8⅞	Advest	.12	1.1	10	170	11⅛	10⅞	11⅛	+⅛
37½	15½	AMD	s		37	4623	31¼	30¼	30½	+⅛
24⅝	12½	Aeflx	s		14	89	14⅛	14	14⅛	-⅛
43½	33¾	AetnLf	2.64	7.4	11	3773	36⅛	35½	35⅞	+¼
59⅞	54⅝	AetL	pf5.26e	9.4		258	56½	55⅞	56⅛	+⅛
40½	20	Ahmns	1.20	5.1	6	770	24⅛	23½	23⅞	+⅛
7⅜	3	Aileen				79	4½	4¼	4⅛	
51	35½	AirPrd	1	2.4	11	2844	42⅛	40¼	41⅛	+1⅛
30⅞	19	AirbFrt	.60	2.8	14	192	23⅞	23	23⅛	+⅜
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Continued on Page 21

AMERICAN STOCK EXCHANGE COMPOSITE CLOSING PRICES

Closing prices March 16

[illegible]

Continued on Page 22

NEW YORK STOCK EXCHANGE COMPOSITE CLOSING PRICES

Continued from Page 20

[illegible]

X–Y–Z

12 Month High	Low	Stock	Div.	Yld.	P/E	Sls 100s	High	Low	Close Quote	Ch'ge Prev. Close
52¼	38⅞	Xerox	3	7.3	9	3069	41½	40⅞	41	+⅛
53⅞	47½	Xerox	pf5.45	11		204	47⅞	47½	47⅞	+⅛
37	31⅛	XTRA		2.3	13	221	27⅞	27⅜	27½	+1⅛
34	25	ZaleCp	1.26	4.7	11	x11	27⅛	26⅞	26⅞	
22¼	14⅛	Zapata	.84	3.7	11	2077	u23	22⅛	22½	+½
62¼	31⅞	Zayre	s .30	.8	10	870	37	36	36⅛	+⅜
38⅝	15½	ZenithR			14	2106	30⅛	29	29⅞	+⅛
27⅛	19⅜	Zero	s .36	1.7	19	67	21⅛	20⅞	21⅛	+⅛
37⅞	22½	Zurnin	1.32	5.2	11	111	25⅞	25⅛	25½	+⅞

Sales figures are unofficial. Yearly highs and lows reflect the previous 52 weeks plus the current week, but not the latest trading day. Where a split or stock dividend amounting to 25 per cent or more has been paid, the year's high-low range and dividend are shown for the new stock only. Unless otherwise noted, rates of dividends are annual disbursements based on the latest declaration.

a–dividend also extra(s). *b*–annual rate of dividend plus stock dividend. c–liquidating dividend. cld–called. d–new yearly low. e–dividend declared or paid in preceding 12 months. g–dividend in Canadian funds, subject to 15% non-residence tax. i–dividend declared after split-up or stock dividend. j–dividend paid this year, omitted, deferred, or no action taken at latest dividend meeting. k–dividend declared or paid this year, an accumulative issue with dividends in arrears. n–new issue in the past 52 weeks. The high-low range begins with the start of trading. nd–next day delivery. P/E–price-earnings ratio. r–dividend declared or paid in preceding 12 months, plus stock dividend. s–stock split. Dividends begins with date of split. sls–sales. t–dividend paid in stock in preceding 12 months, estimated cash value on ex-dividend or ex-distribution date. u–new yearly high. v–trading halted. vi–in bankruptcy or receivership or being reorganised under the Bankruptcy Act, or securities assumed by such companies. wd–when distributed. wi–when issued. ww–with warrants. x–ex-dividend or ex-rights. xdis–ex-distribution. xw–without warrants. y–ex-dividend and sales in full. yld–yield. z–sales in full.

WORLD STOCK MARKETS

OVER-THE-COUNTER Nasdaq National Market closing prices

Closing prices March 16

[illegible]

Continued on Page 27

AMERICAN STOCK EXCHANGE CLOSING PRICES

Continued from Page 21

[illegible]

CANADA

1983-84 High	Low	Stock	Mar. 16
30⅝	12⅞	AMCA Intl.	21
27⅛	12¼	Abitibi	25⅜
20⅞	14⅝	Agnico Eagle	12½
91	17½	Alberta Energy	20¼
50¾	53½	Alcan Aluminium	44⅝
37½	24¾	Algoma Steel	25¾
35⅝	23	Bank Montreal	26⅝
15⅜	10⅝	Bank NovaScotia	12¾
35⅝	22⅛	Bell Canada	30⅝
12½	15¼	Bombardier	17⅛
22⅝	16⅛	Bow Valley	24
27	20	BP Canada Res	92¼
41¾	19⅝	Brascan A	39
4.20	2.15	Brinco	2.37
14⅛	8¼	B.C. Forest	12
33⅝	23⅛	CIL Inc	22¼
12⅛	2	CadillacFairview	11⅞
41½	36	Campbell Red Lk	36
18⅛	12¼	Can. Cement Pf.	15⅛
33¾	22½	Can. NW Energy.	31⅛
30	15½	Can. Packers	27½
60	30½	Can. Trustco	42
49	28⅝	Can.Imp.Bank	26⅝
63¼	35⅞	Can. Pacific	44⅞
25¼	12	Can. Pac. Ents.	21¾
13¾	10⅛	Can. Tire A	12
27⅝	9⅛	Canfor	23¼
24¼	11⅝	Carling O'Kfe	21⅜
19⅞	14	Chieftain	17½
64⅝	44¼	Cominco	64
99	16	Cons. Bathst. A	26¾
6.5	1.4	Copper Lake	2.70
10¾	5½	Costain	10½
95¼	12⅛	Denison Mines A	19⅛
20⅛	8¾	Dofasco	20¼
26⅝	13⅞	Dome Mines	12⅝
6⅞	3.25	Dome Petroleum	4.10
22⅝	16	Dominion Strs	19¼
34⅞	20	Domtar	52⅝
87	47⅝	Falconbridge	29⅞
56⅛	20¼	Genstar	25⅛
28¾	12⅛	Giant Y'knife	26⅝
3.10	1.85	Gt. West Life	2.85
20¼	15⅛	Gulf Canada	12
91	14⅝	Hawker Sid. Can.	17
25⅜	18¼	Hudson's Bay	22
13¼	6¼	Husky Oil	10⅝
38¼	22¾	Imasco	35⅝
41¼	27	Imperial Oil A	38¼
22¾	13⅝	Inco	12⅛
13¾	7¾	Indal	11½
34	91¼	Int. Pipe	26¾
38	19	LACMinerals	56¼
12¼	2¼	Loblaw	14⅝
34⅝	24	Macmil. Bloedel	51
15	8	Marks & Spencer	12¾
7⅝	6.70	Massey Ferguson	4.70
46¼	99½	McIntyre Mines	42
37¼	15½	Mitel Corpn	15¾
23⅜	17¼	Molson A	12⅛
63	46⅛	Moore Corp	47⅛
11⅝	5⅛	Nat. Sea Prods A	8
25¾	12½	Noranda Mines	24⅛
20⅜	19	Norcen Energy	16½
60½	27⅞	Nth. Telecom	43⅞
2¼	6¼	Nova Alberta	7
14½	6⅞	Numac Oil	14¼
12⅞	6½	Oakwood Pet.	8⅝
60¼	2¼	Pan CanPet	25¼
20½	9	Patino	10
28½	19⅝	Placer Dev	22⅝
21¾	12⅝	Power Corp	12⅛
10¾	6⅞	QuebecSturgeon	2⅞
15¾	7¼	Ranger Oil	11
17	11⅞	Reed Stenhs A	12¼
80½	12½	Rio Algom	12⅝
36⅞	26¼	Royal Bank	31¼
30	12	Royal Trust A	26⅝
7¾	4.80	Sceptre Res	6.12
49¼	35⅝	Seagram	45⅛
29¼	20	Shell Canada Oil	26⅝
12	7	Simpson Sears A	8⅝
33⅛	21	Stelco	27
15⅛	9¼	Teck B	10¾
42½	28	Texaco Canada	38⅝
40½	27⅝	Thomson NewsA	32¾
18	13¼	Toronto DomBk	16
24¼	12	Transalta A	21⅝
16⅞	12⅝	Trans Can Pipe	13⅞
29⅛	19¾	Walker Hiram	35¼
15⅞	13⅝	Westcoast Tran	14⅝
69½	42¼	Weston (Geo)	22

FRANCE

1983/84 High	Low	Mar. 12	Price Frs.
2,275	1,636	Emprunt 4½% 1973	1,884
[illegible]	[illegible]	[illegible]	[illegible]

GERMANY

1983/4 High	Low	Mar. 16	Price Dm
[illegible]	[illegible]	[illegible]	[illegible]
197	137	D'sche Babcock	178
322.0	259.3	Deutsche Bank	386.2
197	155.5	Dresdner Bank	180
179	128.2	GHH	159.5
540	410.8	Hochtief	503
193.6	109.3	Hoechst	183.5
139.3	84	Hoesch Werke	119.9
564	410	Holzmann (P)	446
205	111	Horten	127.6
223.5	157	Kali und Salz	200
302	188	Karstadt	257
280	193	Kaufhof	209.5
284.5	197.6	KHD	250
70	35.3	Kloeckner	65.0
94	66	Krupp	83
418	303.5	Linde	380
170.6	81.1	Lufthansa	167
177	128.6	MAN	154
177	123	Mannesmann	144
643	366	Mercedes Hld	512.2
260	190	Metallgesell	235
1,699	280	Muench Rueck	1,120
289.3	186	Preussag	273
199	163	Rhein West Elect	168
348	257	Rosenthal	868
387	294	Schering	354
409.6	345.2	Siemens	408.8
94.5	66	Thyssen	87.8
194.5	165	Varta	120
185.9	137	Veba	175.5
142.4	112.3	V.E.W.	123
335	982	Verein-West	305
237	140.2	Volkswagen	212

AUSTRIA

[illegible]

BELGIUM/LUXEMBOURG

[illegible]

DENMARK

[illegible]

NORWAY

1983 84 High	Low	Mar. 16	Price kroner
127	101.5	Bergens Bank	159
505	83	Borregaard	305
172	118.5	Christiania Bk.	179
176	117	Den Norsk Credit	171
160	57.3	Elkem	156
312	105	Norsk Data	252
607	272.5	Norsk Hydro	587.5
235	127.5	StoreBrand	233

AUSTRALIA

1983-84 High	Low	Mar. 16	Price Aust. $
5.64	3.02	ANZ Group	5.5
1.72	0.75	Acrow Aust	1.6
1.18	0.51	Alliance Oil D	0.84
9.10	1.26	Ampol Pet	1.75
1.94	1.06	Aust Cons Ind	1.78
3.1	2.00	Aust Guarant	2.55
2.90	2.07	Aust Nat Inds	8.7
8.50	1.72	Aust Paper	2.08
6.20	2.15	Bell Group	6.7
1.62	0.17	Bond Corp Hldgs	1.5
3.62	2.03	Boral	5.4
3.06	1.29	B'ville Copper	2.65
5.35	2.20	Brambles Inds	2.8
3.60	2.80	Bridge Oil	5.15
15.75	6.10	BHP	13.1 xr
6.30	3.49	CRA	6.56
4.42	2.52	CSR	4
4.00	1.99	Carlton & Utd	5.85
6.5	3.85	CastlemaineTys	4.08
4.08	2.28	Coles (G.J.)	3.72
5.45	1.60	Comalco "A"	2.2
1.26	0.12	Consolidated Pet	1.25
1.55	0.88	Costain Aust	1.2
1.75	0.22	Dunlop Aust	1.6
6.44	4.70	E.Z. Inds	5.16
4.55	2.50	Elders IXL	4.1
9.0	1.32	Energy Res	1.55
2.30	1.56	Gen Prop Trust	1.2
4.10	3.00	Hardie (J.)	3.20
3.50	1.33	Hartogen Energy	3.15
5.40	1.97	HeraldW'y Times	2.95
9.46	1.48	ICI Aust.	2.05
0.49	0.17	JimBlana(50cFP)	0.34
[illegible]	[illegible]	[illegible]	[illegible]

ITALY

[illegible]

NETHERLANDS

[illegible]

SWEDEN

[illegible]

SINGAPORE

[illegible]

SWITZERLAND

1983/84 High	Low	Mar. 16	Price Frs.
935	503	Alusuisse	883
4,590	6,875	Bank Leu	4,300
1,580	960	Brown Boveri	1,495
2,475	1,605	Ciba Geigy	2,250
1,975	1,290	do. (Part Certs)	1,750
2,395	1,915	Credit Suisse	2,530
2,940	2,598	Elektrowatt	2,700
748	501	Fischer (Geo)	875
3,900	0,423	Genevoise	3,800
112,250	79,250	Hoff-RochePtCts	100,250
11,125	6,975	Hoff-Roche 1/10	10,050
6,750	560	Jacobs Suchard	6,700
2,009	1,500	Jelmoli	1,875
1,610	980	Landis & Gyr	1,330
0,135	5,615	Nestle	4,895
1,635	1,160	Oer-Buehrle	1,350
275	243	Pirelli	251
7,650	4,500	Sandoz (Br)	6,900
1,225	661	Sandoz (Pt Cts)	1,020
660	505	Schindler (PtCts)	650
1,095	715	Swissair	1,070
360	300	Swiss Bank	348
8,500	0,700	Swiss Reinsce	7,750
1,680	1,200	Swiss Volksbk	1,460
5,660	3,140	Union Bank	3,505
3,330	2,670	Winterthur	2,970
19,250	16,300	Zurich Ins	17,950

HONG KONG

1983 84 High	Low	Mar. 16	Price H.K.$
55.25	15.3	Bank East Asia	26.2
10.9	5.7	Cheung Kong	9.25
17.0	9.9	China Light	12.2
3.30	1.27	HangLungDevel.	2.25
7.1	22.9	Hang Seng Bank	45.25
6.95	4.4	HK Electric	7.1
4.70	2.47	HK Kowloon Wh.	4.5
5.00	2.25	HK Land	3.27
9.5	9.4	HK Shanghai Bk.	9.5
42	28.5	HK Telephone	42
12.2	8.00	Hutchison Wpa	12
12.1	7.2	Jardine Math.	15.5
3.90	2.60	New World Dev.	3.6
3.0	2.22	Orient O'seas	2.67
5.1	2.3	O'seas Trust Bk.	3.52
7.45	4.05	SHK Props	7.4
18.2	17.2	Swire Pac A	12.6
4.10	2.32	Wheel'k-Mard A.	3.22
9.40	1.55	Wheel'kMaritime	2.00
9.6	1.55	World Int. Hldgs.	2.32

JAPAN

1983/84 High	Low	Mar. 16	Price Yen
1,170	808	Ajinomoto	1,020
2,840	1,510	Alps Electric	2,800
1,380	516	Amada	1,380
[illegible]	[illegible]	[illegible]	[illegible]

SOUTH AFRICA

[illegible]

SPAIN

[illegible]

NOTES—Prices on this page are as quoted on the individual exchanges and are last traded prices. § Dealings suspended. xd Ex dividend. xc Ex scrip issue. xr Ex rights. xa Ex all.

Copies of this Offer for Sale, having attached thereto the documents specified herein, have been delivered to the Registrar of Companies for registration.

Application has been made to the Council of The Stock Exchange for the Ordinary Share capital of Robertson Research plc ("the Company") in issue and now being issued to be admitted to the Official List. This Offer for Sale includes particulars given in compliance with the Regulations of the Council of The Stock Exchange for the purpose of giving information with regard to the Company and its subsidiaries. The directors of the Company have taken all reasonable care to ensure that the facts stated herein are true and accurate in all material respects and that there are no other material facts the omission of which would make misleading any statement herein whether of fact or of opinion. All the directors of the Company accept responsibility accordingly.

The Application List for the Ordinary Shares now offered for sale will open at 10 a.m. on Thursday, 22nd March, 1984 and may be closed at any time thereafter.

The procedure for application and an application form are set out at the end of this Offer for Sale.

Robertson Research plc

Offer for Sale

by

S. G. Warburg & Co. Ltd.

of

2,564,365 Ordinary Shares of 10p each
at 160p per share
payable in full on application

Share capital

Authorised £		Issued and now being issued fully paid £
1,600,000	in Ordinary Shares of 10p each	1,225,000

The Ordinary Shares now offered for sale rank in full for all dividends hereafter declared or paid except for the special dividend already declared in respect of the year ending 31st March, 1984.

Indebtedness

At the close of business on 24th February, 1984 the Company and its subsidiaries had outstanding bank overdrafts of £683,000 and term loans of £750,000 (all of which are secured by fixed and floating charges on the assets of the Company and certain of its subsidiaries) and hire purchase obligations of £574,000. The Company and its subsidiaries also had certain contingent liabilities totalling £1,591,000 in respect of their own leasing contracts, a third party's leasing contracts and counter-indemnities for bank guarantees given in respect of, inter alia, performance bonds. At the same date one of the Company's subsidiaries had outstanding £77,000 nominal of debentures and the Company and its subsidiaries had outstanding the guaraotees of associated companies' lease obligations and overdrafts described in paragraphs D(xii) and D(xiii) of the accountants' report. Save as aforesaid and apart from intra group liabilities neither the Company nor any of its subsidiaries had at the close of business on that date any loan capital outstaoding or created but unissoed, or any term loans, or any outstanding mortgages, charges, debentures or other borrowings or indebtedness in the nature of borrowing, including bank overdrafts, liabilities under acceptances (other than normal trade bills) or acceptance credits, hire purchase commitments or any guarantees or other material contingeot liabilities. At the close of business on the same date the Company and its subsidiaries had cash at bank of £1,261,000. For the purpose of this paragraph amounts in currencies other than sterling have been translated into sterling at the rates of exchange prevailing on 24th February, 1984.

Definitions

In this document, where the context permits, the following expressions shall bear the following meanings:—

'the Company'	Robertsoo Research plc
'Robertson Research' or 'the Group'	the Company and all or any of its subsidiaries
'RRI'	Robertson Research International Limited, a subsidiary of the Company
'Ordinary Shares'	Ordinary Shares of 10p each in the Company
'Offer for Sale'	the offer for sale of Ordinary Shares as described in this document
'Greenwich'	Greenwich Resources Inc.
'SNC'	SNC Enterprises Limited and/or all or any of its subsidiaries

Summary of information

The information set out below should be read in conjunction with the full text of the Offer for Sale.

Business

Robertson Research is a British-based group providing a wide range of geological and other technical services relating to the exploration for and development of energy and other natural resources throughout the world. The Group, which has a staff of over 650 and whose clients include governments and major oil and mining companies, operates from headquarters in North Wales and through principal subsidiaries in North America, Singapore and Australia.

Trading record

Year ended 31st March	Turnover £000	Profit before taxation £000
1979	4,139	338
1980	5,988	507
1981	8,652	879
1982	12,635	688
1983	14,861	997
Six months ended 30th September, 1983	7,114	832

Forecast for the year ending 31st March, 1984

The directors forecast that, in the absence of unforeseen circumstances and on the bases and assumptions set out in Appendix II, the profit of the Group before taxation for the year ending 31st March, 1984 will be not less than £1.7 million.

Offer for Sale statistics

Offer for Sale price per share	***160p***
Number of Ordinary Shares of 10p in issue after the Offer for Sale	***12,250,000***
Market capitalisation at the Offer for Sale price	**£19.6 million**
Prospective earnings per share for the year ending 31st March, 1984*	**9.1p**
Price/earnings multiple based on prospective earnings per share	**17.7 times**
Notional gross dividend yield based on net dividends per share of 3p	**2.68 per cent.**
Notional dividend cover based on prospective earnings	**3.0 times**

*Based on the forecast profit before taxation for the year ending 31st March, 1984 and an estimated tax charge of 40 per cent. A notional 52 per cent. tax charge would result in earnings per share of 7.2p and a prospective price/earnings multiple of 22.2 times. These tax charges take no account of the proposed taxation changes announced by the Chancellor of the Exchequer in his Budget statement on 13th March, 1984.

Directors, officers and advisers

Directors

Robert Henry Cummings, OBE, BSc, PhD, FGS, FIMM, FInst Pet, FI Min E, MIGeol, (Chairman)

William Francis Robertson, LLD, (Hooorary President)

William Wilson McBride Brown, BSc, PhD, FGS, FIMM, FInst Pet, (Chief Executive)

Herbert Roy Bichan, BSc, PhD, FIMM, MIGeol, (Deputy Chief Executive)

John Thomas Clarke

Lionel Henry James Cook, CD, FIMechE, CEng, MEIC, PEng, (Non-executive)

David Gaunt, (Non-executive)

Alexander Taylor, BSc(Eng), MEIC, MIMechE, PEng, (Non-executive)

all of Ty'n-y-Coed, Llanrhos, Llandudno, Gwynedd, North Wales LL30 1SA

Joint secretaries and registered office

Alexander Macrae Jaffé, MA, FCA
Royce John Clint, MIAS, MBIM
Ty'n-y-Coed, Llanrhos, Llandudno, Gwynedd, North Wales LL30 1SA

Joint auditors and reporting accountants

Ernst & Whinney, Chartered Accountants
Lowry House, 17 Marble Street, Manchester M2 3AW
and
Becket House, 1 Lambeth Palace Road, Londoo SE1 7EV
Astoo, Parkinson & Gadd, Chartered Accouotants
29 Princes Drive, Colwyn Bay, Clwyd, North Wales LL29 8PE

Solicitors to the Company

McKenna & Co.
Inveresk House, 1 Aldwych, London WC2R 0HF

Solicitors to the Offer for Sale

Slaughter and May
35 Basinghall Street, London EC2V 5DB

Stockbrokers

Grieveson, Grant and Co.
59 Gresham Street, London EC2P 2DS

Principal bankers to the Company and receiving bankers to the Offer for Sale

Bank of Scotland
38 Threadneedle Street, London EC2P 2EH

Registrars and transfer office

Regis Securities
Balfour House, 390/398 High Road, Ilford, Essex IG1 1NQ

Introduction

Robertson Research provides an extensive range of geological and related technical services throughout the world to organisations engaged io the exploration for and development of hydrocarbons and other minerals and natural resources.

The Group's commercial success is founded on the quality of its work, the professional expertise which it has built up over a number of years and the range of services which it offers. Clients include major oil and mining companies, public utilities, national and local governments, government agencies and international development organisadons. 1o addition to undertaking individually commissioned projects, the Group carries out multi-client studies for groups of clients with a common interest in a particular subject.

Robertson Research has its headquarters in Llandudno, North Wales and has operating subsidiaries in the United States, Canada, Singapore and Australia. The Group has over 650 employees, of whom over 280 are professionally qualified, including 52 with doctorate degrees. Three quarters of the Group's employees are based in the United Kingdom.

History and development

Robertson Research was founded in 1961 and had its origins in an association between Dr. Robert Cummings, who was then a senior tutor in geology at the University of Glasgow, and Dr. William Brown, at that time a petroleum geologist with Shell, together with members and associates of the Robertson family. The Group's original activity was the provision of mineral assessment services for the Robertson family's quarrying interests which were located principally in North Wales. From this base Robertson Research developed its services in connection with mineral exploration in Britain and overseas. In 1970 an Australian subsidiary was established to provide geological and engineering services to the Australian mining industry.

Robertson Research's involvement with the petroleum industry began in 1962 with the provision of geological services, mainly in Ireland and also in Britain. This experience enabled the Group to establish a leading position in the provision of independent geological services to the North Sea oil and gas industries from the start of North Sea exploration activity in 1964. From these beginnings the range of services has developed to meet the expanding requirements of the petroleum industry, initially in the North Sea and later on a world-wide basis. To widen the Group's geographical coverage and to meet overseas demand for its services, local operations were established in Singapore in 1970, in Calgary in 1972 and in Houston in 1978. The Australian subsidiary extended its activities to include petroleum services in 1971.

In 1972 the Group undertook a joint project to evaluate petroleum exploration data available on the North West Continental Shelf of Australia with the objective of selling the evaluation to a number of exploration companies interested in the area. The Group has since developed a policy of identifying opportunities for such multi-client studies and reports have been prepared covering many areas which are of interest to organisations engaged in the exploration for and development of petroleum, coal and other minerals. In recent years multi-client reports have accounted for over 25 per cent. of the Group's turnover from petroleum services.

The Group has expanded its services from exploration geology to include reservoir geology and other techniques applied in later phases of an oilfield's development. Since 1977 Robertson Research has used the specialist skills in reservoir engineering and economic evaluation of its associate, ERC Energy Resource Consultants Limited ("ERC"), on projects where their services are complementary.

Whilst petroleum services have become the most significant area of the Group's activity and now account for over 75 per cent. of its turnover, the Group has continued to develop its involvement with other minerals and the water and coal industries, both in the United Kingdom and overseas.

In 1975 the Group commenced the design, manufacture and sale of wireline logging equipment in additioo to the range of geotechnical instrumentation which it had been producing for the previous 10 years. Since 1980 Robertson Research has devoted considerable resources to developing its capabilities as a contractor for wireline logging and to the manufacture of related equipment.

1o 1980 and 1981 Robertson Research acquired direct and indirect interests in oon-hydrocarbon mineral prospects in the United Kiogdom, Canada and Sudan as a means of participating in their development potential. These interests have since been exchanged for securities of Greenwich, a Canadian mineral exploration and development company listed on The Toronto and Vancouver Stock Exchanges, as a result of which the Group now has a 15.5 per cent. equity holding in Greenwich.

At the end of 1979 arrangements were made with SNC, a Canadian group engaged in engineering design, procurement and construction, primarily to strengthen the Group's financial position. The arrangements involved SNC acquiring existing shares, subscribing for new shares and providing guarantees for some of the Group's borrowings. As a result of these arrangements SNC held a 29 per cent. ioterest in the Company, a 49 per cent. interest in its Canadiao subsidiary and, with an associated company, a 35 per cent. interest in the Company's United States subsidiary. SNC's interests in these subsidiaries were exchanged for shares in the Company in 1983 and, as a result of these transactions and purchases of shares from other shareholders since 1979, SNC had a 45 per cent. interest in the Company's share capital immediately prior to this Offer for Sale. Following the Offer for Sale, SNC will hold approximately 29 per cent. of the issued share capital of the Company, which it has confirmed it intends to retain as a long term investment.

Further details of the Group's relationship with Greenwich and SNC are set out in Appendix IV.

Business

Robertson Research's turnover for the five years and six months ended 30th September, 1983, divided between its principal activities, was as follows:—

	Year ended 31st March					Six months ended 30th September
	1979	1980	1981	1982	1983	1983
	£000	£000	£000	£000	£000	£000
Services to the oil and gas industry	2,671	4,200	6,230	9,401	11,557	5,466
Services to the minerals industry	923	1,318	1,910	2,886	2,850	1,131
Wireline logging and other activities	545	470	512	348	454	517
Total turnover	4,139	5,988	8,652	12,635	14,861	7,114

The Group's trading profit during the period derived principally from its services to the oil and gas industry.

The following table gives an approximate geographical breakdown of the Group's turnover from its principal activities for the six months ended 30th September, 1983:—

	United Kingdom and the rest of Europe %	North and South America %	Africa and the Middle East %	The Far East and Australia %	Total %
Services to the oil and gas industry	29	22	11	15	77
Services to the minerals industry	6	3	3	4	16
Wireline logging and other activioes	7	—	—	—	7
Total	42	25	14	19	100

Services to the oil and gas industry

Robertson Research has provided technical services in connection with the exploration for and development of hydrocarbons in over 80 countries during the past 10 years. It is, or has been, active in all sectors of the North Sea and in most other major oil exploration and production areas. The Group's clieots include the major oil companies, a large number of independent oil companies, governments, government agencies and international development organisations.

The Group's policy is to provide an extensive range of services to its clients. These services encompass the various phases io petroleum exploration and development described elsewhere in this document, ranging from identificadon of exploration areas to field development. Services provided in the exploration phases range from regional geological and geophysical interpretation to the biostratigraphic and petroleum geochemical analysis of exploration well samples, sedimentology and conventional core analysis. Services in the development phases include reservoir analysis and conventional and special core analysis. In response to the increase in development drilling in the North Sea, the Group has recently established a oew core handling and analysis facility in Aberdeen. Some of the techniques used in its services have been developed by Robertson Research in its laboratories.

Robertson Research uodertakes major regional studies on a multi-client basis and these provide a significant proportion of turnover from petroleum services. Exploration studies generally provide a detailed analysis of a region's stratigraphy, the distribution and nature of the oil and gas source rocks and their relationship to known occurrences of oil and gas; development studies examine the geological and engineering characteristics of known oil and gas reservoirs. In its multi-client reports, which are sometimes prepared jointly with other organisadons, the Group draws on data provided by participating clients and the ooo-confidential parts of the Group's data bank. In general, reports are undertaken only when the major part of their budgeted costs of production have been covered by purchase commitmeots from clients.

Robertson Research plc

The Group prepares independent evaluations of potential oil and gas fields. These are used, for example, by companies before committing substantial expenditure on exploration or development and by governments before opening an area for bidding or in assessing proposed production programmes. In certain types of petroleum evaluation requiring specialist skills in reservoir engineering, economic evaluation and seismic geophysical exploration, Robertson Research works with ERC and others to complement its own expertise.

As part of its services the Group organises technical courses and provides specialist training for clients' personnel.

Services to the minerals industry

Over the past 10 years, Robertson Research has provided technical services for many aspects of the exploration for and the assessment and development of mineral resources in over 50 countries. The Group is engaged to identify exploration prospects, undertake, manage or assist in exploration work, assess the extent and quality of mineral reserves, determine the techniques required to exploit commercially any reserves discovered and assess the technical and economic feasibility of development. The Group's public sector clients include international and government development agencies and state and local governments, and its private sector clients range from small to multi-national companies.

The Group's services include geology, geophysical surveys and interpretation, mining engineering, mineral processing and supporting laboratory services for a broad range of minerals including energy resources, industrial raw materials and base and precious metals. Projects on which the Group is currently engaged include the exploration for and development of coal in Africa, Australasia and South America, heavy mineral sands in Egypt, copper, lead and zinc in Canada and gold in Sudan and Australia. Robertson Research was recently commissioned to produce a series of geological and mineral deposit maps of 22 countries from the Atlantic coast of North Africa to the Arabian Peninsula.

Robertson Research conducts hydrogeological and water resource studies for exploration and production in both developed and developing countries. The Group's environmental services of soil and water analysis are used by local governments and development agencies to identify and control potential hazards in areas planned for development. The Group's minerals division also has an oil and coolant analysis facility for assessing engine wear and pinpointing areas of potential future mechanical breakdown.

Wireline logging and other activities

The Group designs and manufactures wireline logging systems and provides wireline logging services. Robertson Research's involvement in wireline logging had its beginnings in water exploration programmes but has now expanded into coal and other minerals. In order to establish itself in this high technology field Robertson Research has made a significant commitment to research and development.

The Group has two wireline logging systems which are of advanced design. The larger digital system is generally made available to clients only on a service basis, whereas the smaller analog system is also available for sale. The sondes developed by Robertson Research are primarily for coal, mineral and water exploration, but equipment is being developed to expand its services into shallow on-shore oil and gas exploration.

Following a successful tender for a major wireline logging contract with the National Coal Board (Opencast Executive) in August 1982, the Group is currently the largest non-hydrocarbon wireline logging contractor operating in the United Kingdom. The Group's existing wireline logging activities are being developed into overseas markets and it is currently engaged on contracts in Africa and the Philippines.

The Group's cartographic department has produced its own high quality reports and maps for several years. This has the advantages of strict security, timeliness and the maintenance of high standards. As well as meeting the Group's own requirements, the cartographic department designs and produces reports and promotional literature for other companies.

Operations

Areas of operation

The Group's headquarters and main technical facilities are in Llandudno, North Wales. Work for petroleum and minerals clients in Europe and the Middle East, and wireline logging work, is carried out through the Group's operating subsidiaries in the United Kingdom. Outside Europe and the Middle East, assignments are carried out largely by the Group's operating subsidiaries in the United States, Canada, Singapore (which also has a representative office in Indonesia) and Australia. For operational reasons, however, some overseas work is handled from the United Kingdom and technical support is provided, where appropriate, from the Group's facilities in Llandudno. Details of the Group's operating subsidiaries are set out in Appendix IV.

The Group's offices in North Wales, Houston and Singapore undertake a full range of laboratory and other supporting technical work for the Group's petroleum services and, together with the offices in Calgary and Sydney, are involved from time to time in the preparation of multi-client studies. Services to the minerals industry are provided principally through the Group's United Kingdom headquarters and the Australian and Canadian subsidiaries. Much of the work for minerals and wireline logging services, however, is carried out directly in the field at the exploration or development site.

Technical development

Development of the Group's technical capabilities takes place in its laboratories and workshops which also carry out specifically commissioned development projects for clients. The Group's geophysics operations in the United Kingdom and Australia have a continuing programme of software development for the interpretation of non-seismic geophysical data obtained by gravitational, magnetic, electric and electro-magnetic techniques.

Marketing

Marketing of the Group's services and the identification of opportunities for initiating multi-client projects is undertaken by directors and other members of senior management as well as by the Group's scientists. Much of the Group's business is attracted by its reputation in the industry and existing clients provide a considerable source of new projects. Some projects are obtained through competitive tendering.

Clients

The Group undertakes a variety of assignments for clients throughout the world. In recent years the increased range of services provided by Robertson Research has widened its customer base and no single client currently accounts for a significant part of its turnover. The Group is increasingly undertaking larger assignments, particularly projects in developing countries funded by government agencies, financial institutions and international development organisations.

Competitors

The Group has a number of competitors in its various sectors of activity, including universities, government departments, private laboratories, geological consulting groups and companies specialising in wireline logging. The directors believe, however, that few of Robertson Research's competitors in the United Kingdom or overseas can match the range of services it can offer from its own resources.

Administration

Assignments vary in their scale and type from a few hours' work to projects lasting several years, and from the involvement of a single member of the professional staff to multi-disciplinary teams and the deployment of significant amounts of equipment and resources. The Group is organised into specialist units within each main operating division, which gives it the flexibility to deal with a wide variety of projects. Multi-disciplinary projects are controlled by a project manager who co-ordinates the work of the specialist units and arranges for the provision of any other resources required.

The Group frequently raises bid bonds, bank guarantees and performance bonds as required for its assignments. Cover is obtained for certain overseas assignments from the Export Credits Guarantee Department. Professional indemnity and public liability cover is maintained at a level which the directors consider appropriate having regard to the nature of the Group's business. The Group's work includes the handling of potentially hazardous substances and it maintains health and safety procedures in order to protect employees and the public.

Directors, management and staff

The Company's board of directors is responsible for the overall control of the Group and for defining its policies. Financial control is exercised through a Finance Committee which reports on a regular basis to the board. RRI is the principal United Kingdom operating company of the Group and its board is responsible for the implementation of Group policy. Directors of the Company are represented on the boards of all the overseas subsidiaries. The Company's directors and other senior executives of the Group, and their responsibilities, are set out below:—

Directors

Dr. Robert H. Cummings, OBE, aged 60, has been Chairman of the Company since April 1983. He worked for five years with Shell and from 1948 to 1961 held various academic positions including that of senior tutor in geology at the University of Glasgow. He was a founder member of Robertson Research and became its first Managing Director. He has held several Council positions in the CBI and is a member of the Royal Commission for Environmental Pollution and of the House of Commons All Party Committee for Energy.

Dr. W. Francis Robertson, aged 64, is Honorary President of the Company and is a director of Bank of Scotland. He was Chairman of the Company from January 1979 to March 1983. He was awarded an honorary LLD by the University of Strathclyde in 1967.

Dr. William W. McB. Brown, aged 48, is the Group Chief Executive and Chairman of RRI. He was a founder of the Group's business, having previously worked for Shell. He has an Honours BSc degree from the University of Glasgow and a PhD from the University of Wales.

Dr. H. Roy Bichan, aged 42, is Deputy Group Chief Executive and Managing Director of RRI. He joined Robertson Research in 1968 following completion of a doctorate degree in geology and a research fellowship at the University of Leeds. He is the author of several scientific papers and is currently a member of the Council and a Vice President of the Institution of Mining and Metallurgy. Dr. Bichan is non-executive Chairman of Greenwich.

Mr. John T. Clarke, aged 37, joined the Group in 1982 and is responsible for corporate finance. He is a non-executive director of Greenwich and of New Court Natural Resources PLC and a non-executive member of the Committee of Management of Family Assurance Society.

Mr. Lionel H. J. Cook, aged 58, is Vice President, Europe, of SNC. He was appointed a non-executive director in 1979.

Mr. David Gaunt, aged 63, is Chairman of R. Gaunt and Sons (Holdings) Limited, a Yorkshire-based textile company. He was appointed a non-executive director in 1975.

Mr. Alexander Taylor, aged 50, is Executive Vice President of SNC. He was appointed a non-executive director in 1981.

Techniques used in finding and extracting hydrocarbons

As the scientific techniques and technical support services used in the exploration for and development of natural resources such as petroleum and other minerals have become more specialised, it has become increasingly cost effective for exploration and development organisations to rely on outside specialist expertise. Robertson Research provides geological and related technical services to the petroleum and minerals industries, its services in connection with hydrocarbons (oil and gas) accounting for the largest part of the Group's activities. The diagram below shows various phases in the identification and development of an oilfield and some of the services that Robertson Research provides in respect of each phase.

Phase	Services
Basin evaluation	General geological and geophysical studies Regional photogeology and geological mapping Geophysical interpretation Regional structural studies Acreage evaluation
Prospect identification	Identification of exploration areas Detailed geophysical interpretation Initial biostratigraphy, geochemistry and sedimentology
Exploration well drilling	Well-site biostratigraphy Detailed biostratigraphy, source rock and oil analysis and sedimentology Stratigraphic interpretation Reservoir studies Porosity and permeability analysis
Field delineation	Appraisal well sample analysis Structural analysis Sedimentology and reservoir geological modelling Conventional and special core analysis
Field development	Geological modelling for estimation of oil and gas reserves and for enhancing production Special core analysis

Geophysical data is obtained on rock structures principally through **seismic surveys** which involve the transmission of acoustic shock waves into rock formations and the detection and measurement of the reflected signals. **Biostratigraphy** is the analysis of microfossils extracted from rock samples in order to determine the geological age of rocks and the conditions under which they were deposited. The nature and maturity of the organic matter found in rocks is analysed by means of **petroleum geochemistry** in order to determine their potential to generate hydrocarbons. **Sedimentology** involves the study of the sedimentary rock layers of the earth's crust, particularly those making up porous or fractured **reservoirs** which can contain hydrocarbons. **Petroleum geologists** and **geophysicists** interpret this information to evaluate the likelihood of a particular basin containing hydrocarbons in commercial quantities and also its potential for drillable prospects.

Exploration wells are drilled to determine whether prospects contain hydrocarbons. If petroleum is discovered, **appraisal wells** are drilled in order to establish the size and characteristics of the field and whether its economic development is feasible.

The **porosity** of reservoir rocks is a measure of their capacity to contain fluids. A rock's **permeability** is a measure of its capacity to allow hydrocarbons and other fluids to pass through it. **Conventional core analysis** involves the laboratory measurement of the porosity and permeability of reservoir rock samples and the fluids contained in them. **Special core analysis** is a technique used to recreate the conditions of pressure, temperature and fluid content experienced within a reservoir in order to make a realistic assessment of fluid flow. **Reservoir geology** involves the description and mapping of reservoir rocks and the construction of a geological model for use in field development and the calculation of oil and gas reserves. **Reservoir engineering** encompasses the techniques used to enhance the recovery of hydrocarbons from a particular reservoir.

Techniques used in finding and extracting other minerals

Robertson Research provides a wide range of services in relation to the exploration for and development of minerals, including energy resources (such as coal), industrial raw materials (*such as limestone and heavy mineral sands*), base metals (*such as copper, lead and zinc*) and precious metals (such as gold). The diagram below illustrates some of the principal phases associated with exploration leading to the establishment of a mine, together with some of the services that Robertson Research provides in respect of each phase.

Phase	Services
Initial studies	Basic geological research Market analysis
Regional studies	Regional geological mapping Interpretation of data from satellite imagery/aerial photography/airborne geophysics Regional geochemistry Geostatistics Detailed geological mapping and geochemistry Detailed ground geophysics Initial drilling programme and wireline logging
Prospect definition	Detailed drilling programme and wireline logging Preliminary ore reserve estimation Mineral processing studies Infrastructure assessment Ecological studies
Pre-feasibility studies	Ore reserve estimation Ore body modelling Trial mining and mineral processing Mine or open pit design
Feasibility studies	Overall technical assessment Financial modelling
Mine construction, development and operation	Project management

Wireline logging

Wireline logging is a technique for obtaining continuous geological and related data by means of electro-mechanical devices, known as sondes, lowered into boreholes by cable. The data is transmitted through the cable and recorded by computerised equipment at the surface. The technique complements or replaces the obtaining of rock core samples from the borehole for laboratory testing.

Wireline logging is used in both the petroleum and, increasingly, the minerals industries particularly in coal exploration. Information on strata properties determined from wireline logging includes data on density, porosity, rock type, clay content, coal seam thickness or quality and the potential and likely volumes of fluid flow.

Joint company secretaries

Mr. Alexander M. Jaffé, aged 58, is Company Treasurer and Joint Secretary. He is a Chartered Accountant and joined Robertson Research in 1975.

Mr. Royce J. Clint, aged 50, is Joint Secretary of the Company and a director of RRI. He joined the Group in 1971.

Other senior executives

Mr. Ronald D. Butler, aged 55, joined the Group in 1971. He is Managing Director of Robertson Research (Australia) Pty. Limited.

Dr. Graham Dolby, aged 40, joined the Group in 1977. He is a director and General Manager of Robertson Research Canada Limited.

Mr. Roger W. Goldsmith, aged 51, joined the Group in 1973. He is a director of RRI and Technical Director of petroleum services.

Mr. John Hughes, aged 44, joined the Group in 1978. He is a Chartered Accountant and is Financial Controller of RRI.

Dr. Peter Ibbotson, aged 49, joined the Group in 1967. He is a director of RRI and Managing Director of minerals operations.

Mr. Robert W. L. Oldroyd, aged 46, joined the Group in 1962. He is a director of RRI, with particular responsibility for petroleum business development and multi-client reports.

Dr. Pieter J. Rauwerda, aged 53, joined the Group in 1971. He is Managing Director of Robertson Research (Singapore) Pte. Limited.

Dr. Michael E. Scrutton, aged 38, joined the Group in 1969. He is Managing Director of Robertson Research (U.S.) Inc.

Dr. E. Brian Wolfenden, aged 51, joined the Group in 1965. He is a director of RRI and Managing Director of petroleum services.

Dr. Anthony J. Wright, aged 48, joined the Group in 1966. He is a director of RRI and Managing *Director of wireline logging activities.*

Employees

The Group has over 650 staff, of whom over 280 are professionally qualified, including 52 with doctorate degrees. A further 200 are skilled in a technical discipline. Of the total staff approximately 450 are involved in work for the petroleum industry. Robertson Research has a policy of training staff of all grades through a variety of internal and external courses in order to help them develop the more specialised skills required by the Group.

A Staff Council, comprising two directors and the personnel manager of RRI and 12 *members of staff, meets monthly* and is the main channel of staff communications for United Kingdom employees. Close contact is also maintained with the trade union of which some United Kingdom employees are members. There have not been any industrial disputes within the Group since it was founded and labour relations are good.

The Group operates a contributory pension and life assurance plan and a permanent health insurance plan for eligible United Kingdom employees and a separate non-contributory executive pension scheme for certain senior executives. Separate schemes are operated for overseas employees. A profit-related bonus scheme is operated for the employees of the United Kingdom subsidiaries with more than 12 months' service. The aggregate annual payment under the scheme *amounts to 10 per cent. of the consolidated* profit before tax of the United Kingdom operating companies after taking account of the allocation under the scheme. Employees in overseas locations participate in benefit schemes appropriate to local circumstances.

The Group has a policy of encouraging the ownership of the Company's shares among management and employees and approximately 30 per cent. of the Ordinary Shares in issue after the Offer for Sale will be held by a total of approximately 90 employees (including directors) before taking into account any shares which they may puchase under the Offer for Sale. The directors propose to consider in due course the introduction of an executive share option scheme.

Financial information

Reasons for the issue and proceeds

The directors believe that the listing of the Company's shares on The Stock Exchange and the issue will assist the development of the Group's business and will facilitate the funding of its growth and, where appropriate, the making of acquisitions.

Of the 2,564,365 Ordinary Shares now being offered for sale, 1,000,000 shares are new Ordinary Shares being issued for cash and 1,564,365 shares are being made available as to 1,284,761 shares by SNC and as to the balance by certain other shareholders. The net proceeds of the issue of new shares, after deduction of the expenses of the Offer for Sale, are estimated at £1,068,000.

Net assets

The consolidated net tangible assets of Robertson Research at 30th September, 1983, as shown in paragraph D of the accountants' report in Appendix I, amounted to £5,405,000. Taking into account the net proceeds of the issue of the new shares, net tangible assets as at that date would be £6,473,000 representing 52.8p per Ordinary Share on the enlarged Ordinary Share capital. This takes no account of the surplus over book value of the current market value of the Group's listed investments and freehold properties.

Working capital

The directors are of the opinion that, having regard to available bank facilities, cash resources and the net proceeds of the issue of the new shares, Robertson Research will have sufficient working capital for its present requirements.

Trading record

The following table, based on the accountants' report in Appendix I, summarises the results of the Group for the five years ended 31st March, 1983 and the six months ended 30th September, 1983.

	Year ended 31st March					Six months ended 30th September
	1979	1980	1981	1982	1983	1983
	£000	£000	£000	£000	£000	£000
Turnover	4,139	5,988	8,652	12,635	14,861	7,114
Profit before taxation	338	507	879	688	997	832

Turnover increased in each of the five years ended 31st March, 1983 and by approximately 260 per cent. during this period. This growth primarily reflected increased demand for the Group's services to the oil and gas industries and, in particular, services to oil companies operating in the North Sea.

Profit before taxation for the year ended 31st March, 1981 benefited from buoyant market conditions in the United States and Australia. During the following two years ended 31st March, 1983 turnover and profits from operations in the United Kingdom and the Far East continued to grow. However, Group profits during this period were affected by costs associated with the development of the Group's wireline logging business and by the performance of the North American and Australian subsidiaries, which suffered from a downturn in petroleum and minerals exploration and development.

The period since 1st April, 1983 has seen continuing progress in oil and gas operations in the United Kingdom and much improved performances by the North American and Australian subsidiaries, partially offset by further development costs of the Group's wireline logging operations.

Profit forecast

The directors forecast that, in the absence of unforeseen circumstances and on the bases and assumptions set out in Appendix II, the profit of the Group before taxation for the year ending 31st March, 1984 will not be less than £1.7 million.

After deducting an estimated tax charge of 40 per cent., earnings would amount to £1.02 million, earnings per share would be 9.1p and the price/earnings multiple at the Offer for Sale price would be 17.7 times. After deducting a notional full tax charge of 52 per cent., earnings would amount to £816,000, earnings per share would amount to 7.2p and the price/earnings multiple would be 22.2 times. These tax charges take no account of the proposed taxation changes announced by the Chancellor of the Exchequer in his Budget statement on 13th March, 1984. The figures for earnings per share have been calculated on the basis of 11,258,200 shares, being the weighted average number of shares in issue for the year ending 31st March, 1984 (after taking into account the adjustments set out in paragraph D(viii) of the accountants' report).

Dividends

The directors have resolved to pay (subject to the completion of the Offer for Sale) by 31st March, 1984 a special dividend equivalent to 1p per Ordinary Share in respect of the year ending on that date to shareholders on the register on 22nd February, 1984, but do not intend to propose or pay further dividends in respect of that year.

If the Company had been a listed company for the whole of the year ending 31st March, 1984 and assuming profits before taxation of £1·7 million, the directors would have expected to recommend net dividends totalling 3p per Ordinary Share in respect of that year (equivalent to 4.3p inclusive of tax credit). A total dividend of 4.3p per Ordinary Share (inclusive of tax credit) would represent a gross yield of 2.68 per cent. on the Offer for Sale price and its net cost would be covered 3.0 times by prospective earnings of £1.02 million for the year ending 31st March, 1984.

The directors intend in future years to pay an interim dividend in February and a final dividend in September. It is expected that the first dividend payable after the date of the Offer for Sale would be an interim dividend in respect of the year ending 31st March, 1985 which would be payable in February 1985.

The future

The directors of Robertson Research believe that the Group's reputation has been built on the twin foundations of the excellence of its work and its integrity as an independent organisation. The Group has grown by combining many skills to meet its clients' requirements and by responding quickly and flexibly to changing opportunities in its areas of activity. The directors believe that these qualities equip the Group for continued growth in the future.

Petroleum services will continue to provide the major part of Robertson Research's turnover and profits. Activities in the North Sea are likely to benefit from an increasing demand for petroleum services in post-exploration phases of oil and gas field operations, such as reservoir geology, conventional and special core analysis and other techniques associated with secondary recovery. The geographical expansion of the Group's petroleum services is expected to include areas where existing exploration and development activity is likely to increase, such as East and West Africa and the Americas, and new areas such as off-shore China. The directors are confident of continued opportunities and demand for multi-client reports.

The Group intends to extend its coal and mineral wireline logging activities to shallow on-shore petroleum exploration, particularly gas exploration in Europe. Demand for the Group's mineral services is to some extent influenced by the level of world economic activity and changes in the prices of *coal, industrial minerals* and base and precious metals. The prospects for economic recovery are more encouraging now than they have been for several years and the directors expect Robertson Research to benefit from any upturn in activity.

The directors are confident that Robertson Research has the breadth of experience, skills, technical capabilities and financial resources to continue its profitable growth.

Appendix I

Accountants' report

The following is a copy of a report to the directors of the Company and the directors of S. G. Warburg & Co. Ltd. made by the joint auditors and reporting accountants:

Ernst & Whinney,
Becket House,
1 Lambeth Palace Road,
London SE1 7EV

Aston, Parkinson & Gadd,
29 Princes Drive,
Colwyn Bay, Clwyd,
North Wales LL29 8PE

15th March, 1984

The Directors,
Robertson Research plc

The Directors,
S. G. Warburg & Co. Ltd.

Gentlemen,

A Introduction

We have examined the audited accounts of Robertson Research plc ("the Company") and its subsidiaries (together "the Group") for the five years ended 31st March, 1983 and for the six months ended 30th September, 1983. The accounts for the four years ended 31st March, 1982 were audited by Aston, Parkinson & Gadd and the accounts for the year ended 31st March, 1983 and for the six months ended 30th September, 1983 were audited jointly by Ernst & Whinney and Aston, Parkinson & Gadd.

The following transactions have been reflected in the summarised financial information set out below as if they had taken place prior to 1st April, 1978:—

(i) Robertson Research Engineering Services Limited ("RRES") commenced trading as a wholly owned subsidiary of the Company on 1st April, 1978. On 9th January, 1979, the Welsh Development Agency ("WDA") acquired 50 per cent. of the issued share capital of RRES but, as from 21st December, 1982, the Company acquired half of those shares and RRES became a 75 per cent. subsidiary of the Company. On 12th March, 1984, the Company entered into an agreement with the WDA, conditional upon the admission by the Council of The Stock Exchange of the Ordinary shares of the Company to the Official List, whereby the Company will acquire the remaining part of the issued share capital of RRES not already owned by the Company for a consideration satisfied by the issue, credited as fully paid, of 65,000 Ordinary shares of 10p each.

(ii) On 19th December, 1983, the Company acquired that part of the issued share capital of Robertson Research (U.S.) Inc. ("RR(US)") and Robertson Research Canada Limited ("RR Canada") respectively not already owned *by the Company at that date for an aggregate consideration of £227,250 satisfied by the issue, credited as fully paid,* of 225,000 Ordinary shares of 5p each.

The summarised financial information set out below under the heading "Historical cost accounts" has been derived from the audited accounts of the Group, adjusted as we consider appropriate and on the basis that the Group had been as presently constituted throughout the period. In our opinion this information gives, on the basis of the historical cost convention modified by the revaluation of certain freehold properties and items of equipment, a true and fair view of the profits and source and application of funds of the Group for the five years ended 31st March, 1983 and the six months ended 30th September, 1983 and of the state of affairs of the Company and of the Group as at 30th September, 1983.

The summarised financial information set out below under the heading "Current cost accounts" has been derived from the abridged supplementary current cost accounts of the Group for the two years ended 31st March, 1983, adjusted as we consider appropriate and on the basis that the Group had been as presently constituted throughout those two years. In our opinion this information has been properly prepared in accordance with the policies and methods set out in the notes to give the information required by Statement of Standard Accounting Practice No. 16.

No audited accounts have been prepared for the Group for any period subsequent to 30th September, 1983.

Robertson Research plc

Historical cost accounts

B Accounting policies

The significant accounting policies of the Group, which have been consistently applied to arriving at the financial information set out in this section of the report, are as follows:

(i) Basis of accounting

The accounts are prepared under the historical cost convention modified by the revaluation of certain freehold properties and items of equipment.

(ii) Basis of consolidation

The consolidated accounts include the accounts of the Company and each of its subsidiaries made up to 31st March each year and to 30th September for the six months ended 30th September, 1983, after eliminating intra Group trading.

(iii) Turnover

Turnover comprises the invoiced value of goods and services supplied by the Group, exclusive of value added tax.

(iv) Associated companies

The Group's share of profits of its associated companies is included in the consolidated profit and loss account and its share of post acquisition reserves is included in the consolidated balance sheet.

(v) Depreciation

Freehold properties are maintained, as a matter of Group policy, by a programme of repair and refurbishment such that the residual values of the properties are at least equal to their book values. *Having regard to this it is the opinion of the directors* that depreciation of the properties as required by standard accounting practice would not be material. Depreciation is provided on other tangible assets mainly on the straight line basis, having regard to their estimated useful lives and expected residual values, at the following rates per annum:

Leasehold improvements	5—40 per cent.
Equipment	10—33⅓ per cent.
Furniture	5—10 per cent.
Motor vehicles	20—25 per cent.

(vi) Stocks and work in progress

Stocks and work in progress are valued at the lower of cost and net realisable value after making due allowances for any obsolete or slow moving items.

(vii) Long term contracts

Profit on long term contracts is recognised by accruing profit appropriate to the stage reached on the contract if its outcome is foreseeable prior to completion. Full provision is made for any anticipated losses on contracts in hand.

(viii) Research and development

Expenditure on research and development is charged to the profit and loss account in the period in which it is incurred.

(ix) Deferred taxation

Deferred taxation is provided on the liability method on short term timing differences and all other material timing differences which are not expected to continue in the future.

(x) Foreign currencies

In individual Group companies, transactions denominated in foreign currencies are recorded at the rate of exchange ruling at the date of the transaction; monetary assets and liabilities denominated in foreign currencies at the balance sheet date are translated at the rate of exchange ruling on that date. All exchange differences thus arising are dealt with as part of the result for the period.

On consolidation, assets, liabilities and reserves of overseas subsidiary companies are translated at the rate of exchange at the balance sheet date. All translation adjustments arising on consolidation are included in reserves.

(xi) Government grants

Amounts receivable in respect of capital based grants are set off against the costs of relevant assets before depreciation.

(xii) Rebates

The Group contracts to give rebates to clients in connection with certain sales of multi-client reports. These rebates may be obtained only as a reduction of the purchase price for other multi-client reports and their contractual availability lapses after a determined period, usually about four years. The value of outstanding potential rebates is assessed at the end of each accounting period and an appropriate provision is made in the accounts in respect of such potential liabilities based on the Group's experience of their utilisation. The provision in the balance sheet is apportioned appropriately between current and deferred liabilities.

C Profit and loss accounts

The historical cost profit and loss accounts of the Group for the five years ended 31st March, 1983 and the six months ended 30th September, 1983 were as follows:—

	Note	Year ended 31st March 1979 £000	1980 £000	1981 £000	1982 £000	1983 £000	Six months ended 30th September 1983 £000
Turnover		4,191	5,098	8,652	12,635	14,861	7,114
Cost of sales	(i)	3,835	4,595	7,774	11,973	13,921	6,319
Operating profit		356	503	878	662	940	795
Share of profits of associated companies		2	4	1	26	57	37
Profit before taxation		338	507	879	688	997	832
Taxation	(ii)	95	57	266	151	354	304
Profit after taxation		243	450	613	537	643	528
Extraordinary items	(iii)	—	—	47	23	—	70
Profit attributable to members		243	450	660	560	643	598
Dividends	(iv)	23	54	71	79	93	1
Retained profit		220	396	589	481	550	597
Earnings per share	(v)	2.4p	4.5p	5.4p	4.8p	5.7p	4.7p

Notes on the profit and loss accounts

(i) Cost of sales included:—

	Year ended 31st March 1979 £000	1980 £000	1981 £000	1982 £000	1983 £000	Six months ended 30th September 1983 £000
Depreciation	117	148	256	361	508	327
Audit fees	21	26	39	50	67	51
Directors' emoluments	55	74	81	130	143	75
Net interest payable	79	136	155	219	265	107
Leasing and hire charges	39	57	105	196	267	119
Gain on disposal of mineral interests	—	—	—	(144)	(175)	(46)

The gain on disposal of mineral interests represents the profit on the sale of those interests, in July 1981, to Greenwich Resources Inc. ("Greenwich") for a consideration of £68,000 together with a maximum of 400,000 common shares without par value in Greenwich ("Greenwich shares") which were to be issued to the Group over three years, subject to the approval of the Vancouver Stock Exchange. The shares were issued as follows:—

Date received	Number of shares	Market value on date issued £000
Year ended 31st March, 1982	130,000	57
Year ended 31st March, 1983	130,000	132
Six months ended 30th September, 1983	140,000	246
	400,000	435

Greenwich shares are listed on The Toronto and Vancouver Stock Exchanges and are traded in Canadian dollars. The gain on disposal set out above reflects the difference between the book amount and the sum of the cash consideration, the market value of the shares issued on the date received and the market value of the shares still to be issued as recalculated at the end of each relevant accounting period and translated at the exchange rate appropriate at the balance sheet date.

(ii) The charge for taxation, which was based on the profits for the period, comprised:—

	Year ended 31st March 1979 £000	1980 £000	1981 £000	1982 £000	1983 £000	Six months ended 30th September 1983 £000
U.K. corporation tax at 52 per cent.	16	(34)	71	131	237	247
Less: relief for overseas taxation	6	—	—	—	50	2
	10	(34)	71	131	187	245
Overseas taxation	85	91	195	16	158	45
Associated companies	—	—	—	4	9	14
	95	57	266	151	354	304

The charge for U.K. corporation tax for each financial period has been reduced by:—

	Year ended 31st March 1979 £000	1980 £000	1981 £000	1982 £000	1983 £000	Six months ended 30th September 1983 £000
Capital allowances	76	217	226	196	220	(28)
Stock appreciation relief	(4)	6	3	6	6	4
	72	223	229	202	226	(24)

The charge for taxation has not been adjusted in the years ended 31st March, 1979 to 1983 to reflect the additional relief for the losses of RRES which would have been available if it had been a wholly owned subsidiary throughout the period.

(iii) The extraordinary items represented:—

	Year ended 31st March 1979 £000	1980 £000	1981 £000	1982 £000	1983 £000	Six months ended 30th September 1983 £000
Profit on disposal of premises	—	—	47	—	—	—
Profit on sale of investments	—	—	—	23	—	70
	—	—	47	23	—	70

In the year ended 31st March, 1982, the Group sold all of its shares in an unlisted United States company and in the six months ended 30th September, 1983 the Group sold part of its shareholding in a listed Australian company.

(iv) Dividends during the period were as follows—

	Year ended 31st March 1979 £000	1980 £000	1981 £000	1982 £000	1983 £000	Six months ended 30th September 1983 £000
Preference	3	3	3	3	4	1
Ordinary	20	51	68	85	102	—
Deferred	—	—	—	—	—	—
	23	54	71	88	106	1
Less amounts waived	—	—	—	9	13	—
	23	54	71	79	93	1

At 30th September, 1983 dividends proposed in respect of the Participating Convertible Cumulative Preference shares (£1,000) and the Ordinary shares (£102,000) for the year ended 31st March, 1983 had not been approved or paid.

(v) The earnings per share for the five years ended 31st March, 1983 and the six months ended 30th September, 1983 are based on the profit after taxation and before extraordinary items in each period and the weighted average number of shares in issue as follows:—

	Year ended 31st March 1979 £000	1980 £000	1981 £000	1982 £000	1983 £000	Six months ended 30th September 1983 £000
Profit after taxation	243	450	613	537	643	528
Weighted average number of equivalent Ordinary shares of 10p in issue	10,005,000	10,341,252	11,250,000	11,250,000	11,250,000	11,250,000

The weighted average number of Ordinary shares in issue has been adjusted from the beginning of the period to reflect the transactions set out in paragraph D(viii) below. No account has been taken of the new Ordinary shares of 10p each to be subscribed and offered for sale to the public, or the net proceeds therefrom.

D Balance sheets

The historical cost balance sheets of the Company and the Group as at 30th September, 1983 were as follows:—

Company £000		Note	Group £000
	Fixed assets		
—	—Tangible assets	(i)	4,644
1,655	—Interests in subsidiaries	(ii)	—
101	—Investments	(iii)	767
1,756			5,411
	Current assets		
—	—Stocks and work in progress		826
1	—Debtors		4,219
—	—Bank balances		538
1			5,583
	Current liabilities		
22	—Creditors	(iv)	2,786
—	—Hire purchase liabilities		157
12	—Taxation		502
103	—Proposed dividends		103
—	—Bank overdrafts	(v)	796
137			4,344
(136)	Net current assets (liabilities)		1,239
1,620	*Total assets less current liabilities*		6,650
—	Loan capital	(vi)	750
—	Deferred liabilities	(vii)	495
1,620	Total assets less liabilities		5,405
1,125	Called up share capital	(viii)	1,125
495	Reserves	(ix)	4,280
1,620			5,405

Notes on the balance sheets

(i) Tangible assets of the Group comprised:—

	Cost or valuation £000	Depreciation £000	Net book amount £000
Freehold properties	1,043	—	1,043
Leasehold improvements	219	174	45
Equipment and furniture	4,935	1,489	3,446
Motor vehicles	196	88	108
	6,395	1,751	4,644

The freehold properties included properties which were independently valued at £355,000 on 17th April, 1979, on an open market basis with vacant possession. Subsequent additions to freehold properties are shown above at their aggregate cost of £692,000.

Certain items included in equipment and furniture have been revalued as follows:—

Date of valuation	Valuer	Basis of valuation	Value at date of revaluation £000	Net book amount £000
1st April, 1978	Independent professional valuers	Existing use	516	168
31st March, 1980	Independent professional valuers	*Depreciated* replacement cost	131	123
31st March, 1983	Directors	Depreciated historical cost*	226	214
			873	505

*These items had previously been written off on purchase.

(ii) Interests in subsidiaries comprised:—

	Company £000
Shares at cost	354
Advances and amounts owing by subsidiaries to the Company on current account	1,301
	1,655

(iii) Investments comprised:—

	Company £000	Group £000
Listed on recognised overseas stock exchanges (Group market value £3,254,000)	75	616
Associated companies:		
—Shares at cost	26	46
—Share of post acquisition reserves	—	105
	101	767

The listed investments comprised:—

	Company £000	Group £000
Shares in Greenwich	75	604
Other	—	12
	75	616

a) The Group's shares in Greenwich have been acquired as follows:—

	Number of shares	Book amount £000
Part of consideration for sale of mineral interests (paragraph C (i))	400,000	435
Escrow shares released (see below)	30,000	—
Shares still held in escrow (see below)	120,000	1
Consideration for sale on *27th April, 1983 of 364,687* ordinary shares in Minex Developments P.L.C. ("Minex")	1,458,748	168
	2,008,748	604

In July 1981, the Group acquired from a director of Greenwich through RR Canada 150,000 Greenwich shares, which were then held in escrow, for a consideration of C$1,500 of which 30,000 *were released from escrow prior to* 30th September, 1983. The remaining 120,000 shares were then still held in escrow and could not be traded on The Toronto or Vancouver Stock Exchanges until they were released. In December 1983, a further 37,500 shares were released, leaving 82,500 shares still held in escrow.

The shares acquired as consideration for the sale of the mineral interests are included at the market value of the shares on the dates when they were issued. The book amount of the shares acquired as consideration for the sale of the ordinary shares in Minex represents the original cost to the Group of those shares.

As an additional part of the consideration for the sale of its Minex shares to Greenwich, the Group received 72,937 *share warrants of Greenwich. The warrants carry the right, exercisable until 26th April, 1984, to purchase one* Greenwich share at a price of C$3.00 per share for every two warrants held.

At 30th September, 1983, the Group's shares and warrants in Greenwich, other than those then held in escrow, had an aggregate market value of £3,196,000.

b) The other listed investment had a market value at 30th September, 1983 of £38,000.

(iv) Group creditors included £212,000 in respect of the current portion of the provision for potential rebates *(paragraph B (xii)) and £77,000 in respect of the issued debenture stock referred to in sub-paragraph (xii) below.*

(v) Bank overdrafts amounting to £609,000 were secured.

(vi) Loan capital comprised:—

	Group £000
13 per cent. debenture secured on the assets of a subsidiary repayable in ten equal half yearly instalments commencing 1st September, 1985	250
Secured term loan repayable £150,000 on 31st July, 1986, £150,000 on 31st July, 1987 and £200,000 on 31st July, 1988	500
	750

(vii) Deferred liabilities comprised:—

	Group £000
Hire purchase creditors due after 30th September, 1984	228
Provision for potential rebates (paragraph B (xii))	212
Government grants	47
Others	8
	495

(viii) At 30th September, 1983 the authorised and called up share capital of the Company comprised:—

	Authorised £	Called up £
Ordinary shares of 5p each	193,750	85,375
Participating Convertible Cumulative Preference shares of 5p each	6,000	4,000
Deferred shares of 5p each	250	250
	200,000	89,625

a) On 14th November, 1983, the authorised share capital of the Company was increased from £200,000 to £400,000 by the creation of 4,000,000 Ordinary shares of 5p each and on the same date 3,575,000 Ordinary shares of 5p each were issued, credited as fully paid by way of capitalisation of the sum of £178,750 standing to the credit of the share premium account of the Company, to the holders of Ordinary shares and/or Participating Convertible Cumulative Preference shares in existence at such date pro rata to their holdings.

b) On 19th December, 1983, 225,000 Ordinary shares of 5p each were issued, credited as fully paid, as satisfaction for the aggregate consideration of £227,250 for the acquisition, with effect from 1st October, 1983, by the Company of that part of the issued share capital of RR(US) and RR Canada respectively not already owned by the Company at such date.

c) During February, 1984, each of the 80,000 issued and fully paid Participating Convertible Cumulative Preference shares of 5p was converted into an Ordinary share of 5p.

d) On 12th March, 1984, each of the 40,000 unissued Participating Convertible Cumulative Preference shares of 5p was reclassified as an Ordinary share of 5p.

e) On 12th March, 1984, each of the Deferred shares of 5p was converted into an Ordinary share of 5p.

f) On 12th March, 1984, every two Ordinary shares of 5p each, including those converted and reclassified as shown in c), d) and e) above, were consolidated into one Ordinary share of 10p.

g) On 12th March, 1984, the authorised share capital of the Company was increased from £400,000 to £1,600,000 by the creation of an additional 12,000,000 Ordinary shares of 10p each.

h) On 12th March, 1984, conditional upon the Ordinary share capital of the Company being admitted to the Official List, 8,383,750 Ordinary shares of 10p each were issued, credited as fully paid, by way of capitalisation of the sum of £838,875 satisfied partly by the balance of £575,608 standing to the credit of the share premium account and partly by an amount of £263,267 standing to the credit of the profit and loss account.

i) Under an agreement dated 12th March, 1984, conditional upon the Ordinary share capital of the Company being admitted to the Official List, 65,000 Ordinary shares of 10p will be issued, credited as fully paid, as consideration for the acquisition by the Company of that part of the issued share capital of RRES not already owned *by the Company at such date.*

The share capital of the Company as at 30th September, 1983, adjusted to reflect the above transactions, comprised:—

	Authorised £	Called up £
Ordinary shares of 10p each	1,600,000	1,125,000

(ix) Reserves comprised:—

	Company £000	Group £000
Share premium	33	33
Capital reserve	—	141
Revaluation reserve	—	608
Translation reserve	—	314
Profit and loss account	462	3,184
	495	4,280

The balances on the share premium account and on the profit and loss account at 30th September, 1983 have been adjusted to reflect the transactions set out in (viii) above.

(x) No provision has been made for deferred taxation arising from accelerated capital allowances and other timing differences, since it is unlikely that such a liability will arise in the foreseeable future. The potential liability in respect of deferred taxation, which arises mainly from accelerated capital allowances, was approximately £1,528,000 at 30th September, 1983.

(xi) At 30th September, 1983 the Group's capital expenditure authorised and contracted for amounted to £376,000.

(xii) At 30th September, 1983, one of the Company's subsidiaries had approximately £55,000 nominal of 12 per cent. debenture stock created but unissued and approximately *£77,000 of such debenture stock in issue. Since 30th* September, 1983, the unissued stock has been cancelled. Arrangements have been made under which, conditional upon the Ordinary share capital of the Company being admitted to the Official List, the issued debenture stock will be repaid at par. Such stock has been included in the balance sheet at 30th September, 1983 under current liabilities.

(xiii) At 30th September, 1983, the Company had given a counter-indemnity of approximately £80,000 in respect of a subsidiary's bank overdraft. Other Group contingent liabilities comprised:—

a) leasing contracts amounting to £297,000;

b) guarantees in respect of a third party's leasing contracts amounting to £44,000;

c) counter-indemnities for bank guarantees under performance bonds and similar obligations amounting to £494,000;

d) guarantees of an associated company's lease payments up to the year 2006, with an aggregate current annual rental of approximately £72,000; and

e) guarantees of approximately £18,000 (limited to a maximum of £18,000) in respect of the bank overdraft and approximately £89,000 in respect of leasing contracts of an associated company.

E Statements of source and application of funds

The statements of source and application of funds of the Group for the five years ended 31st March, 1983 and the six months ended 30th September, 1983 were as follows:—

	Year ended 31st March 1979 £000	1980 £000	1981 £000	1982 £000	1983 £000	Six months ended 30th September 1983 £000
Source of funds						
Profit before taxation	338	507	879	688	997	832
Items not involving the movement of funds:						
—Depreciation	117	148	256	361	508	327
—Share of profits of associated companies	(2)	(4)	(1)	(26)	(57)	(37)
—Translation adjustments	7	2	—	26	(2)	(11)
Disposal of tangible assets	4	3	136	17	25	42
Disposal of mineral interests	—	—	—	41	—	—
Disposal of investments	—	—	—	23	—	98
Issue of shares	—	436	—	29	—	—
Repayment of loan	—	—	10	10	—	—
Loan capital	—	81	—	—	165	500
Total sources	464	1,173	1,280	1,169	1,636	1,751
Application of funds						
Working capital increase (decrease):						
—Stocks and work in progress	42	95	(41)	156	90	154
—Debtors	134	607	897	1,145	(77)	493
—Creditors	(154)	(520)	(41)	(887)	(786)	301
—Hire purchase liabilities	(21)	(63)	(24)	(8)	(6)	19
	1	119	791	406	(779)	967
Deferred liabilities	—	—	(141)	(539)	198	(15)
	1	119	650	(133)	(581)	954
Additions to tangible assets	441	809	984	1,096	1,182	377
Acquisition of mineral interests	—	—	41	—	—	—
Acquisition of investments	24	—	56	198	180	235
Tax paid	50	55	115	87	393	57
Dividends paid	3	23	54	62	75	1
Loan and mortgage repayments	20	1	19	30	—	—
Costs of share issues	—	—	—	—	—	17
Total applications	539	1,007	1,917	1,290	1,249	1,641
Increase (decrease) in net liquid funds	(75)	166	(637)	(121)	387	110

Current cost accounts

F Accounting policies

The current cost accounts have been prepared in compliance with Statement of Standard Accounting Practice No. 16. Except as set out below, the accounting policies used in the current cost accounts are the same as those used in the historical cost accounts.

(i) Tangible assets and depreciation

Plant and machinery has been revalued at 31st March, 1982 and at 31st March, 1983 within the United Kingdom, *Canada and the United States and evaluated on a similar basis in other overseas subsidiaries. Land and buildings* were included at their then most recent professional revaluation.

Tangible assets are depreciated in the current cost accounts over periods similar to those used in the historical cost accounts. Total depreciation charged *in the current cost profit and loss account represents the current cost of the* proportion of tangible assets consumed in the period. The depreciation adjustment represents the difference between the depreciation charge in the historical and in the current cost accounts. The adjustments on the disposal of tangible assets represent the difference between the historical cost and current cost net book values of the assets in question at the dates of disposal.

(ii) Working capital

This includes stocks, work in progress and debtors less creditors, net overdrafts, hire purchase and deferred liabilities. In order to allow for the impact of price changes on working capital, two adjustments are made to the operating costs calculated on the historical cost basis, one on stock and the other on monetary working capital. The adjustments are based on movements in price indices issued by the Government Statistical Service.

(iii) The gearing adjustment

This represents that part of the current cost adjustments which is borne by the providers of outside finance, rather than shareholders. It is calculated by reference to the average proportion that net borrowings bear to net operating assets.

G Current cost profit and loss accounts

The current cost profit and *loss accounts of the Group for the two years ended 31st March, 1983 were as follows:—*

	Year ended 31st March 1982 £000	1983 £000
Turnover	12,635	14,861
Historical cost profit before interest and taxation	907	1,262
Deduct current cost operating adjustments		
—Cost of sales	(14)	(16)
—Monetary working capital	(66)	(28)
—Depreciation	(194)	(259)
—Disposal of tangible assets	(4)	(5)
Current cost operating profit	629	954
—Interest	(219)	(265)
—Gearing adjustments	29	26
Current cost profit before taxation	439	715
Taxation	131	354
Current cost profit before extraordinary item	288	361
Extraordinary item	23	—
Current cost profit attributable to members	311	361
Dividends	79	93
Retained current cost profit	232	268

H Current cost balance sheet

The Group's current cost balance sheet at 31st March, 1983 was as follows:—

	Note	£000
Tangible assets	(i)	5,271
Investments		
—Associated companies		128
—Other		408
Net current assets		472
Total assets less current liabilities		6,279
Loan capital		327
Deferred liabilities		482
Total assets less liabilities		5,470
Capital and reserves		
—Share capital		1,125
—*Current cost reserve*	(ii)	1,373
—Other reserves		2,972
		5,470

Notes on the current cost balance sheet

(i) Tangible assets comprised:—

	Current cost £000	Depreciation £000	Net book amount £000
Land and buildings	1,566	201	1,365
Plant and *machinery*	7,322	3,416	3,906
	8,888	3,617	5,271

(ii) Current cost reserve comprised:—

	£000
Revaluation of tangible assets	1,274
Cost of sales adjustment	36
Monetary working capital adjustment	145
Gearing adjustment	(82)
	1,373

Yours faithfully,

ERNST & WHINNEY
Chartered Accountants

ASTON, PARKINSON & GADD
Chartered Accountants

Robertson Research plc

Appendix II
Profit forecast: bases, assumptions and letters

1. Bases and assumptions

The forecast of the profit of the Group before taxation for the year ending 31st March, 1984 of not less than £1.7 million has been made by the directors—

(i) on the basis of the audited accounts for the six months ended 30th September, 1983, the unaudited management accounts for the three months ended 31st December, 1983 and management information for January 1984; and

(ii) on the principal assumptions that there will be no material change in the current exchange rates and that trading will not be materially affected by any circumstances beyond the Group's control.

2. Letters

The following are copies of letters relating to the profit forecast for the year ending 31st March, 1984:—

Letter from Ernst & Whinney and Aston, Parkinson & Gadd:

The Directors,
Robertson Research plc,
Ty'n-y-Coed,
Llanrhos,
Llandudno,
Gwynedd,
North Wales LL30 1SA

15th March, 1984

Gentlemen,

We have reviewed the accounting bases applied and calculations made in preparing the forecast of profit before taxation of Robertson Research plc and its subsidiaries ("the Group") for the year ending 31st March, 1984 (for which forecast you, as directors, are solely responsible). This forecast, which is contained in the paragraph headed "Financial information-profit forecast" of the Offer for Sale dated 15th March, 1984, includes the audited results for the six months ended 30th September, 1983 and the results shown by the unaudited management accounts for the subsequent three months ended 31st December, 1983.

In our opinion, the forecast of profit before taxation, so far as the accounting bases and calculations are concerned, has been properly compiled on the footing of the principal assumptions set out in Appendix II of the Offer for Sale and is presented on a basis consistent with the accounting policies normally adopted by the Group.

Yours faithfully,

ERNST & WHINNEY
Chartered Accountants

ASTON, PARKINSON & GADD
Chartered Accountants

Letter from S. G. Warburg & Co. Ltd.:

The Directors,
Robertson Research plc,
Ty'n-y-Coed,
Llanrhos,
Llandudno,
Gwynedd,
North Wales LL30 1SA

15th March, 1984

Gentlemen,

We have discussed with you the profit forecast of Robertson Research plc and its subsidiaries for the year ending 31st March, 1984 and the principal assumptions on which it is based, set out in the Offer for Sale dated 15th March, 1984. We have also discussed with Ernst & Whinney and Aston, Parkinson & Gadd the work they have done in respect of the forecast as set out in their letter to you dated 15th March, 1984. We consider that the profit forecast (for which you, as directors, are solely responsible) has been made after due and careful enquiry.

Yours faithfully,
for S. G. WARBURG & CO. LTD.
D. A. HIGGS
Director

Appendix III
Premises

Robertson Research occupies freehold properties at Ty'n-y-Coed, Llanrhos and Back York Road, Deganwy, both in Gwynedd, North Wales.

The Group's headquarters were established at Ty'n-y-Coed in 1969. Ty'n-y-Coed comprises offices and laboratories on a 6.89 acre site. The original building dates from 1892 and extensions were added in the 1940s. New buildings housing petroleum and mineral extensions were completed in 1981 and 1983 respectively and further extensions are under construction. Total floor area comprises approximately 95,000 square feet. The property at Back York Road is a small industrial unit of approximately 6,000 square feet.

The properties at Ty'n-y-Coed and at Back York Road were independently revalued as at 31st December, 1983 at £1,440,000 and £37,000 respectively, on the basis of open market value assuming existing use.

The Group also leases the following premises in the United Kingdom and overseas:—

Location and description	Current annual rent	Expiry date	Date of next rent review	Total area in square feet
3, 5 and 7 Catherine Place, City of Westminster, London Offices	£12,500	28th September, 1996	29th September, 1984	3,200
Unit 1 Wellheads Crescent Trading Estate, Dyce, Aberdeen Laboratories	£9,075	31st January, 2003	25th March, 1985	3,492
Units 3, 5 and 6 Wellheads Crescent Trading Estate, Dyce, Aberdeen Laboratories	£27,460	25th March, 2004	25th March, 1987	10,298
Llandudno Junction, Gwynedd, North Wales Core preparation and storage	£14,000	27th September, 1992 (agreement for lease)	28th September, 1987	10,000
77 Pacific Highway, Sydney, Australia Offices	A$117,702	16th October, 1987	19th April, 1985	7,083
333 Adelaide Street, Brisbane, Australia Offices	A$29,388 (subject to review)	30th November, 1985	—	3,225
Lougheed Building, Third Floor, 604-1st Street S.W. Calgary, Canada Offices and laboratories	C$39,172	30th June, 1984 and 30th June, 1988	—	5,195
Suites 306 and 316, 16730 and 16515 Hedgecroft, Houston, Texas, United States Offices and laboratories	US$110,544 rising to US$122,004	31st August, and 30th September, 1986	—	19,546
Units 10-21, Block 6 and Units 25-26, Block 7, 55 Ayer Rajah Industrial Estate, Singapore Offices and laboratories	S$129,171	15th April and 31st August, 1984	—	13,092

Appendix IV
Statutory and General Information

1. Share capital

(a) The Company, then named Robertson Research Holdings Limited, was incorporated in England no. 1212786 as a private company on 16th May, 1975 under the Companies Acts 1948 to 1967 with an authorised share capital of £200,000. The Company changed its name to Robertson Research Limited on 15th March, 1984 and re-registered as a public company on the same date.

(b) At 15th March, 1982 the authorised share capital of the Company was £200,000 divided into 3,875,000 Ordinary shares of 5p each, of which 1,707,500 were issued, 120,000 Participating Convertible Cumulative Preference shares of 5p each, of which 80,000 were issued, and 5,000 Deferred shares of 5p each, all of which were issued. Changes to the authorised and issued share capital of the Company during the two years preceding the date of this Offer for Sale and proposed changes are as follows:—

(i) on 14th November, 1983 the authorised share capital of the Company was increased from £200,000 to £400,000 by the creation of 4,000,000 Ordinary shares of 5p each and on the same date 3,575,000 Ordinary shares of 5p each were issued, credited as fully paid, by way of capitalisation of the sum of £178,750 standing to the credit of the share premium account of the Company to the holders of Ordinary shares of 5p each and/or Participating Convertible Cumulative Preference shares of 5p each in the capital of the Company in existence at such date pro rata to their holdings;

(ii) on 19th December, 1983 225,000 Ordinary shares of 5p each were issued, credited as fully paid, as consideration for the acquisition pursuant to the Agreements referred to in paragraph 8(v) below by the Company from SNC with effect from 1st October, 1983 of that part of the issued share capital of Robertson Research (U.S.) Inc. and Robertson Research Canada Limited respectively not already owned by the Company at such date;

(iii) by notices of conversion dated 17th February, 1984 and 22nd February, 1984 each of the 80,000 issued Participating Convertible Cumulative Preference shares of 5p was converted into one Ordinary share of 5p, pursuant to the Articles of Association of the Company in force at such dates;

(iv) on 12th March, 1984 each of the unissued Participating Convertible Cumulative Preference shares of 5p was reclassified as an Ordinary share of 5p, each Deferred share of 5p was converted into one Ordinary share of 5p, every two Ordinary shares of 5p each were consolidated into one Ordinary Share, the authorised share capital of the Company was increased from £400,000 to £1,600,000 by the creation of 12,000,000 new Ordinary Shares and, conditional upon the Ordinary Share capital of the Company, issued and now being issued, being admitted to the Official List, 8,388,750 new Ordinary Shares were issued, credited as fully paid, by way of capitalisation of the sum of £838,875 standing to the credit of the share premium account and retained profits of the Company, to the holders of Ordinary Shares as at such date pro rata to their holdings on the basis of three new Ordinary Shares for every Ordinary Share then held;

(v) on 15th March, 1984 pursuant to the Purchase and Subscription Agreement referred to in paragraph 4 below, conditional upon the Ordinary Share capital of the Company, issued and now being issued, being admitted to the Official List, 1,000,000 new Ordinary Shares were provisionally allotted to S. G. Warburg & Co. Ltd.; and

(vi) on 18th March, 1983 the changes to the capital of Robertson Research Engineering Services Limited ("RRES") referred to in paragraph 8(ii) below and, on 12th March, 1984, the arrangements referred to in paragraph 8(vi) below, were effected. The Agreement referred to in paragraph 8(vi) below involved the issue, credited as fully paid, of 65,000 Ordinary Shares, conditional upon the Ordinary Share capital of the Company, issued and now being issued, being admitted to the Official List.

(c) By Special Resolution passed on 12th March, 1984, conditional upon the Ordinary Share capital of the Company, issued and now being issued, being admitted to the Official List, the directors were generally authorised, pursuant to Section 14 of the Companies Act 1980, to allot relevant securities (as defined in that Section) limited to the amount of the unissued share capital of the Company on such date, such authority expiring on 11th March, 1989.

(d) By Special Resolution passed on 12th March, 1984, conditional upon the Ordinary Share capital of the Company, issued and now being issued, being admitted to the Official List, the directors were empowered, pursuant to Section 18 of the Companies Act 1980, to allot equity securities (as defined in Section 17 of that Act) for cash pursuant to the authority referred to in sub-paragraph (c) above as if Section 17(1) of that Act did not apply. This power expires on the date of the Company's Annual General Meeting to be held in the calendar year 1985 and is limited to:—

(i) the allotment of shares as or to the order of S. G. Warburg & Co. Ltd. pursuant to the Purchase and Subscription Agreement referred to in paragraph 4 below;

(ii) allotments in connection with rights issues;

(iii) the allotment (otherwise than pursuant to (i) or (ii) above) of a maximum of 5 per cent. of the nominal amount of the authorised share capital of the Company as at 12th March, 1984.

(e) Following this Offer for Sale the authorised share capital of the Company will be £1,600,000 divided into 16,000,000 Ordinary Shares of which 12,250,000 will be in issue fully paid or credited as fully paid.

(f) No share or loan capital of the Company or any of its subsidiaries is under option or agreed conditionally or unconditionally to be put under option.

(g) Save as disclosed or referred to in paragraph 1(b) above no share or loan capital of the Company or any of its subsidiaries has been issued within two years immediately preceding the date of this Offer for Sale or is now proposed to be issued, fully or partly paid, either for cash or for a consideration other than cash.

(h) Save as disclosed in paragraph 4 below no commissions, discounts, brokerages or other special terms have been granted by the Company or any of its subsidiaries within two years immediately preceding the date of this Offer for Sale in connection with the issue or sale of any share or loan capital of such companies.

(i) No material issue of shares of the Company (other than pursuant to the Purchase and Subscription Agreement referred to in paragraph 4 below or to shareholders pro rata to their existing holdings) will be made within one year of the date of this Offer for Sale without the prior approval of the Company in General Meeting.

(j) Following this Offer for Sale 3,750,000 Ordinary Shares will remain unissued but no issue of shares which would effectively alter the control of the Company will be made without the prior approval of the Company in General Meeting.

2. Articles of Association

The Articles of Association of the Company contain provisions, inter alia, to the following effect:

Voting rights

Subject to any special rights or restrictions (of which there are none at present) as to voting attached to the shares, on a show of hands every member who (being an individual) is present in person or (being a corporation) is present by a representative not being himself a member shall have one vote and on a poll every member who is present in person or by proxy shall have one vote for every share of which he is the holder. A member shall not be entitled to vote unless all calls or other sums presently payable by him have been paid or, without the consent of the directors, in respect of all shares held by him if he or any person appearing to be interested in such shares has been duly served with a notice under Section 74 of the Companies Act 1981 and fails to provide the Company with the information thereby required within 28 days of the date of service of such notice.

Variation of rights

Rights attached to any class of shares may (unless otherwise provided by the terms of issue of the shares of that class) be modified or abrogated either with the consent in writing of the holders of three-fourths of the issued shares of that class or with the sanction of an Extraordinary Resolution passed at a separate General Meeting of the holders of shares of that class, but not otherwise. The special rights conferred upon the holders of any shares or class of shares issued with preferred or other rights shall not, unless otherwise expressly provided by the terms of issue of such shares or class of shares, be deemed to be modified by the creation or issue of further shares ranking pari passu therewith.

Directors

(a) No shareholding qualification shall be required of a director.

(b) Unless and until otherwise determined by the Company in General Meeting, the directors shall not be less than two or more than twelve in number.

(c) The ordinary remuneration of the directors shall in the aggregate not exceed £30,000 per annum together with such additional fees as the Company may in General Meeting determine. Such remuneration shall be divisible among the directors as they may by resolution determine or, in default of determination, equally. The directors may (unless otherwise expressly resolved by the Company in General Meeting) grant such extra remuneration by way of salary, percentage of profits or otherwise as they may determine to any director who, at the request of the directors, performs special services or goes or resides abroad for any purposes of the Company. The directors may also be paid all travelling, hotel and other expenses properly incurred by them in attending and returning from meetings of the directors or any committee of the directors or General Meetings of the Company or in connection with the business of the Company.

(d) The directors may from time to time appoint one or more of their number to an executive office. A director holding executive office shall receive such remuneration (whether by way of salary, commission or participation in profits or partly in one way and partly in another) as the directors may determine and such remuneration shall, unless otherwise agreed, be additional to such remuneration (if any) payable to him as a director.

(e) A director may hold any other office or place of profit with the Company (except that of Auditor) in conjunction with his office of director for such period and upon such terms as the directors may determine and may be paid such extra remuneration therefor as the directors may determine. A director may act by himself or his firm in a professional capacity for the Company (otherwise than as Auditor) and he or his firm shall be entitled to remuneration for professional services as if he were not a director.

(f) A director may be or become a director or other officer of, or otherwise interested in, any company promoted by the Company or in which the Company may be interested and shall not be liable to account to the Company or the members for any remuneration, profit or any other benefit received by him as a director or officer of or from his interest in such other company. The directors may also cause the voting power conferred by the shares in any other company held or owned by the Company to be exercised in such manner as they think fit, including the exercise thereof in favour of any resolution appointing the directors or any of them to be directors or officers of such other company, or voting or providing for the payment of remuneration to the directors or officers of such other company.

(g) Subject to the Companies Acts 1948 to 1983 and to sub-paragraph (h) below, no director or proposed or intending director shall be disqualified by his office from contracting with the Company either with regard to his tenure of any office or place of profit or as vendor, purchaser or in any other manner whatever, nor shall any such contract or any other contract or arrangement in which any director is in any way interested be liable to be avoided, nor shall any director so contracting or being so interested be liable to account to the Company or the members for any remuneration, profit or other benefit realised by any such contract or arrangement by reason of such director holding that office or of the fiduciary relationship thereby established.

(h) A director who to his knowledge is in any way, whether directly or indirectly, interested in a contract or arrangement or proposed contract or arrangement with the Company shall declare the nature of his interest at the meeting of the directors at which the question of entering into the contract or arrangement is first taken into consideration, if he knows his interest then exists, or in any other case at the first meeting of the directors after he knows that he is or has become so interested. A general notice to the directors given by a director to the effect that he is a member of a specified company or firm and is to be regarded as interested in any contract or arrangement which may after the date of the notice be made with such company or firm shall be sufficient declaration of interest under this paragraph in relation to any contract or arrangement so made; provided that no such notice shall be effective unless either it is given at a meeting of the directors or the director giving the same takes reasonable steps to secure that it is brought up and read at the next meeting of the directors after it is given.

(i) Save as provided in paragraph (j) below, a director shall not vote (nor be counted in the quorum) on any resolution of the directors in respect of any contract or arrangement in which he is to his knowledge, directly or indirectly, materially interested and if he shall do so his vote shall not be counted.

(j) The prohibition described in paragraph (i) above shall not apply to any of the following matters namely:—

(i) any contract or arrangement for giving to such director any security or indemnity in respect of money lent by him or obligations undertaken by him for the benefit of the Company;

(ii) any contract or arrangement for the giving by the Company of any security to a third party in respect of a debt or obligation of the Company which the director has himself guaranteed or secured in whole or in part;

(iii) any contract or arrangement by a director to subscribe for shares, debentures or other securities of the Company issued or to be issued pursuant to any offer or invitation to members or debenture holders of the Company or any class thereof or to the public or any section thereof, or to underwrite any shares, debentures or other securities of the Company;

(iv) any contract or arrangement in which he is interested by virtue of his interest in shares or debentures or other securities of the Company or by reason of any other interest in or through the Company;

(v) any contract or arrangement concerning any other company (not being a company in which the director owns one per cent. or more of the equity or voting share capital) in which he is interested directly or indirectly whether as an officer, shareholder, creditor or otherwise howsoever;

(vi) any proposal concerning the adoption, modification or operation of a superannuation fund or retirement, death or disability benefit scheme which relates both to directors and employees of the Company or of any of its subsidiaries and does not accord to any director as such any privilege or advantage not generally accorded to the employees to which such scheme or fund relates;

(vii) any arrangement for the benefit of employees of the Company or of any of its subsidiaries under which the director benefits in a similar manner as the employees and does not accord to any director as such any privilege or advantage not generally accorded to the employees to whom such arrangement relates.

(k) Where arrangements are under consideration concerning the appointment (including the arrangement or variation of the terms thereof or the termination thereof) of two or more directors to offices or places of profit with the Company or any other company in which the Company is interested, a separate resolution may be put in relation to each director and in such case each of the directors concerned shall be entitled to vote (and be counted in the quorum) in respect of each resolution except that concerning his own appointment (or the arrangement or variation of the terms thereof or the termination thereof) and except (in the case of an office or place of profit with any such other company as aforesaid) where the other company is a company in which the director owns one per cent. or more of the equity or voting share capital.

(l) If any question shall arise at any meeting of the directors as to the materiality of the interest of a director (other than the chairman of the meeting) or as to the entitlement of any director (other than such chairman) to vote or be counted in the quorum and such question is not resolved by his voluntarily agreeing to abstain from voting or not to be counted in the quorum, such question shall be referred to the chairman of the meeting and his ruling in relation to such other director shall be final and conclusive except in the case where the nature or extent of the interest of the director concerned as known to such director has not been fairly disclosed to the directors. If any question as aforesaid shall arise in respect of the chairman of the meeting such question shall be decided by a resolution of the directors (for which purpose such chairman shall be counted in the quorum but shall not vote thereon) and such resolution shall be final and conclusive except in the case where the nature or extent of the interest of such chairman as known to such chairman has not been fairly disclosed to the directors.

(m) The Company may by ordinary resolution suspend or relax the provisions summarised under sub-paragraphs (i)-(l) above either generally or to any extent or ratify any transaction not duly authorised by reason of a contravention of such provisions.

(n) The directors may procure the establishment and maintenance of or participation in or contribution to any non-contributory or contributory pension or superannuation fund, scheme or arrangement or life assurance scheme or arrangement for the benefit of, and pay, provide for or procure the grant of donations, gratuities, pensions, allowances, bonuses, benefits or emoluments to, any person (including directors and other officers whether of the Company or not) who are or shall have been at any time in the employment of or in the service of the Company or of any company which is a subsidiary of the Company or of the predecessors in business of the Company or of any such subsidiary company or of any allied or associated companies of the Company or any such companies or the wives, widows, families or dependants of any such persons.

(o) The office of a director shall be vacated at the next Annual General Meeting following the attainment by such director of the age of sixty five.

Borrowing powers

The directors may exercise all the powers of the Company to borrow money and to mortgage or charge its undertaking, property and uncalled capital and to issue debentures, debenture stock and other securities whether outright or as collateral security for any debt, liability or obligation of the Company or of any third party.

The directors shall restrict the borrowings of the Company and exercise all voting and other rights or powers of control exercisable by the Company in relation to its subsidiary companies so as to secure that the aggregate amount for the time being remaining undischarged of monies so borrowed or secured by the Company and its subsidiaries ("the Group") (excluding intra group borrowings) shall not at any time, without the previous sanction of the Company in General Meeting exceed an amount equal to twice the aggregate of:—

(a) the nominal amount of the capital of the Company for the time being issued and paid up or credited as paid up; and

(b) the amounts standing to the credit of the consolidated capital and revenue reserves of the Group (including share premium account, capital redemption reserve and profit and loss account) all as shown by the latest audited consolidated balance sheet of the Group.

3. Directors' and other interests

(a) Following this Offer for Sale the interests of the directors and their families in the issued share capital of the Company (excluding any shares which the directors may purchase under this Offer for Sale), as shown by the register maintained under the provisions of the Companies Act 1967, will be as follows:—

	Ordinary Shares	%
R. H. Cummings	569,560	4.6
W. F. Robertson	192,422	1.5
W. W. McB. Brown	556,200	4.5
H. R. Bichan	237,200	1.9
J. T. Clarke	70,000	0.6
L. H. J. Cook		
D. Gaunt	467,150	3.8
A. Taylor		

All of the above interests are beneficial. In addition Dr. H. R. Bichan has a non-beneficial interest in 173,035 shares as a trustee of the Robertson Research Employee Benefits Trust referred to in (d) below.

(b) Following this Offer for Sale SNC will hold 3,510,888 Ordinary Shares representing 28.7 per cent. of the Company's issued share capital. Apart from this holding, the directors are not aware of any other shareholding which, following this Offer for Sale, will represent five per cent. or more of the Company's issued share capital.

(c) The directors of the Company have the following interests in the share capital of Greenwich:—

	Shares	Warrants	Options
W. F. Robertson	22,500	27,500	—
W. W. McB. Brown	1,156	1,156	—
H. R. Bichan	2,105	2,105	140,000
J. T. Clarke	542,596	—	75,000
L. H. J. Cook	2,105	2,105	—
D. Gaunt	10,320	5,266	—

Every two warrants entitle the holder to subscribe, prior to 26th April, 1984, for one Greenwich share at a price of C$ 3.00.

(d) Dr. H. R. Bichan is a trustee of the Robertson Research Employee Benefits Trust which was formally established in November 1983 for the benefit of employees and former employees of RRI and the Company and their dependants. Following this Offer for Sale the trustees of the Trust will hold 173,035 Ordinary Shares.

(e) (i) No director of the Company has or has had any interest, direct or indirect, in any assets which, within two years before the date hereof, have been, or are proposed to be, acquired or disposed of by, or leased to, the Company or any of its subsidiaries.

(ii) No contract or arrangement subsists in which a director of the Company is materially interested and which is significant in relation to the business of the Company and its subsidiaries, taken as a whole.

(f) (i) Dr. R. H. Cummings has a service contract with the Company dated 14th March, 1984 under which the Company has agreed to employ him as Chief Scientist and Chief Executive Consultant until 22nd September, 1989 and he has agreed to continue to serve the Company as Chairman and Director until such date. The contract provides for an initial salary of £30,000 per annum which is subject to review on 1st January, 1985 and each succeeding 1st January during the term of the contract, each salary to be increased with effect from each review date by such amount (being not less than 5 per cent. per annum) as the directors consider appropriate. Dr. Cummings will retire at the age of 65 or at an earlier age with the agreement of the Company up to 31st March, 1986 or after that date at any time he may desire. If he retires before the age of 65, Dr. Cummings will receive payments until he attains that age equal to two-thirds of his highest salary over the five years immediately preceding the date of his retirement and after he attains that age his pension will be not less than two-thirds of his highest pensionable salary in the five years prior to 22nd September, 1988.

(ii) Dr. W. W. McB. Brown has a service contract with the Company dated 14th March, 1984 under which he has agreed to serve the Company as Chief Executive for an initial term of five years renewable automatically upon the expiry of three years of such initial term for a further three year term from that date and thereafter on a basis which provides that the term of the contract is at no time less than two years. The provision for extension of the contract may be terminated by either the Company or the director on not less than 12 months' notice. The contract provides for an initial salary of £44,000 per annum to be reviewed on 1st January, 1985 and each succeeding 1st January and to be increased with effect from each review date by such amount as the directors consider appropriate having regard to certain specified criteria including the rate of inflation. Dr. Brown is a member of the Company's pension scheme which provides for a pension on his retirement at the age of 65 of an amount not less than two-thirds of his final pensionable salary.

(iii) Dr. H. R. Bichan has a service contract with the Company dated 14th March, 1984 under which he has agreed to serve the Company as Deputy Chief Executive on terms in all material respects the same as for the Chief Executive set out in sub-paragraph (ii) above save that the period of service is indefinite but terminable by not less than 24 months' notice by either party and that the initial salary is £36,000 per annum.

(iv) Each of Dr. W. F. Robertson and Mr. D. Gaunt has entered into a consultancy agreement with the Company dated 14th March, 1984 expiring at the date of the Annual General Meeting of the Company immediately following his attainment of the age of 65 and which he receives an annual sum at the rate of $8,000. Dr. Robertson is retained to advise on the financial affairs of the Group and its business development and Mr. Gaunt is retained to advise generally on the development of the Group's business. Both Dr. Robertson and Mr. Gaunt are members of the Company's pension scheme.

(v) Save as aforesaid there are no existing or proposed service contracts between any of the directors and the Company or any of its subsidiaries which are not determinable by the employing company without payment of compensation (other than statutory compensation) within a period of one year.

(vi) In the year ended 31st March, 1983 the aggregate emoluments of the directors (excluding pension benefits) amounted to £129,151. The aggregate emoluments in respect of the year ending 31st March, 1984 are expected to amount to approximately £150,000 (excluding pension benefits).

4. Purchase and Subscription Agreement

(a) Under an Agreement dated 15th March, 1984 and entered into between SNC, H. R. Bichan, E. B. Wolfenden and C. M. Bate as trustees of the Robertson Research Employee Benefits Trust ("the Trustees") and the other persons mentioned under (c) below (together "the Vendors") (1), the Company (2), the directors (3) and S. G. Warburg & Co. Ltd. ("Warburgs") (4), Warburgs has agreed, conditional on the admission to the Official List of The Stock Exchange of all the Ordinary Shares of the Company, issued and now being issued, not later than 28th March, 1984, to purchase 1,564,965 Ordinary Shares from the Vendors and to subscribe or procure subscribers for 1,000,000 Ordinary Shares in each case at a price of 136.8p per share and to offer all such shares for sale to the public. The Agreement contains warranties by the directors in relation to the Group and the accuracy of the information supplied for the purpose of the Offer for Sale.

(b) The Company has agreed to bear the whole of the costs and expenses of and incidental to the Offer for Sale, including those relating to the increase in and the reorganisation of the share capital of the Company for the purposes of the Offer for Sale, the application to The Stock Exchange for listing, the accountancy and legal expenses of the Company, the fees and expenses of the receiving bankers and the registrars, capital duty and the costs of printing, advertising and circulating this and other documents, together with a fee to Warburgs. Warburgs is to pay at its own expense underwriting commissions of 1¼ per cent. on the Offer for Sale price, a fee to Grieveson, Grant and Co. and its own legal expenses.

(c) The Vendors and the Ordinary Shares being sold by them respectively are as follows:—

Vendor	Number of shares	Vendor	Number of shares
SNC	1,284,761	I. R. Brown	5,000
The Trustees	82,204	R. W. Goldsmith	1,600
M. T. Halbouty	80,000	P. Ibbotson	4,000
F. R. Halbouty	90,000	R. W. L. Oldroyd	4,800
F. J. Brown	5,000	E. B. Wolfenden	7,000

5. Principal subsidiary and associated companies

The following are the Company's principal subsidiaries, all of which are wholly owned:—

Name	Date of incorporation	Country of incorporation	Issued share capital	General nature of business
Robertson Research International Limited	13th February, 1970	England	£67,500	Principal operating company of the Group
Robertson Research Company (incorporated with unlimited liability)	14th December, 1961	Scotland	£100	Computing, cartography and other Group services
Robertson Research Engineering Services Limited	31st March, 1978	England	£800,000	Wireline logging services and instrumentation
Robertson Research (Australia) Pty. Limited	5th March, 1970	Australia	A$1,000	Petroleum and mineral services
Robertson Research Canada Limited	1st March, 1972	Canada	1,960 ordinary shares of no par value	Petroleum and mineral services
Robertson Research (Singapore) Pte. Limited	15th March, 1974	Singapore	S$100,000	Petroleum services
Robertson Research (U.S.) Inc.	22nd May, 1978	United States	US$1,538	Petroleum and mineral services
Celcan Limited	23rd November, 1979	Canada	100 shares of no par value	Investment holding company
White Cloud Minerals Limited	30th November, 1977	Gibraltar	£100	Investment holding company
Robertson Research Pension Trust Company Limited	6th January, 1981	England	£100	Pension trustee

The Group's associated companies are the following:—

Name and nature of business	Date and country of incorporation	Issued share capital and proportion held
ERC Energy Resource Consultants Limited (Petroleum engineering consultants)	12th January, 1977 England	94 "A" Ordinary shares of £1 each (of which 21 per cent. is held by the Group) and 92,000 "B" Ordinary shares (non voting) of £1 each (of which 22 per cent. is held by the Group)
Pasco Engineering Limited (Engineering services for the petroleum industry)	10th June, 1976 England	8,400 "A" Ordinary shares (non voting) of £1 each (of which none is held by the Group), 15,120 "B" Ordinary shares (non voting) of £1 each (of which 19 per cent. is held by the Group) and 189,900 Deferred shares of £1 each (of which 12.5 per cent. is held by the Group)
Digimap Geodata Services Pty Limited (Computer exploration services)	20th February, 1980 Australia	1,000 shares of A$1 each (of which 25 per cent. is held by the Group)

6. Greenwich

(a) As described in the accountants' report in Appendix I, Robertson Research has exchanged certain direct and indirect investments in various non-hydrocarbon mineral prospects for securities in Greenwich and has acquired further securities. These securities comprise 2,008,748 common shares without par value, of which 82,500 are currently subject to restrictions on transfer, and warrants to subscribe for 36,468 common shares prior to 26th April, 1984 at C$3.00 per share. The value of these securities, excluding those subject to transfer restrictions, based on the closing price on The Toronto Stock Exchange on 9th March, 1984 amounted to approximately C$5,318,000 (equivalent to approximately £2,870,000 at an exchange rate of C$1.853 = £1). The investment in Greenwich, which the Group intends to retain, is carried at a book amount of £604,000 in the consolidated accounts of Robertson Research. Greenwich has not declared or paid any dividends since incorporation.

(b) The Group provides technical and related services to Greenwich. Under a five-year agreement dated 26th October, 1981 Robertson Research is obliged to introduce to a subsidiary of Greenwich any non-hydrocarbon mineral prospects in certain geographical areas which come to the attention of Robertson Research except where, for reasons of confidentiality or otherwise, Robertson Research is not permitted to do so. During the 12 months ended 31st March, 1983 Robertson Research provided technical services to Greenwich representing a fee income to the Group of £612,794.

7. SNC

(a) In November 1983 the then directors of the Company gave an undertaking to SNC to use their best endeavours to maintain at least two representatives of SNC acceptable to them as directors for so long as SNC held 20 per cent. or more of the issued share capital of the Company and at least one such representative for so long as SNC held 5 per cent. or more of such share capital. In the event of the Board comprising more than 10 members, SNC would be entitled to a proportionately increased number of representatives or such other number as SNC and the directors might agree.

(b) Under the Purchase and Subscription Agreement referred to in paragraph 4 above SNC has undertaken with Warburgs that it will not before 14th March, 1985 sell, transfer or otherwise dispose of any Ordinary Shares held by SNC without the prior agreement of Warburgs, such agreement not to be unreasonably withheld.

(c) Following completion of this Offer for Sale the financial guarantees provided by SNC in relation to certain of the Group's borrowings will be released.

8. Material contracts

The following contracts, not being contracts in the ordinary course of business, have been entered into by the Company and its subsidiaries within two years immediately preceding the date of this Offer for Sale and are, or may be, material:—

(i) letters dated 18th February, 1983 from the Company and RRI to the directors of Greenwich containing irrevocable undertakings by the Company and RRI to accept or procure acceptances in respect of shareholdings in Minex Developments P.L.C. ("Minex") representing 27.7 per cent. of the issued share capital of Minex in connection with an offer by Greenwich for the whole of such share capital;

(ii) an Agreement dated 18th March, 1983 between the Welsh Development Agency ("WDA") (1), Welsh Development Agency (Holdings) Limited ("WDA Holdings") (2), RRES (3), the Company (4) and RRI (5) relating, inter alia, to the sale by WDA Holdings to RRI of 75,000 Ordinary shares of £1 in RRES for the sum of £75,000, the conversion of the 75,000 Ordinary shares of £1 in RRES retained by WDA Holdings into 75,000 Preferred Ordinary shares of £1, the advance by WDA to RRES by way of secured loan of the sum of £250,000 and the subscription by each of WDA and RRI for 250,000 Cumulative Redeemable Preference shares of £1 in the capital of RRES at par;

(iii) an Agreement dated 18th March, 1983 between WDA Holdings (1) and RRI (2) setting out the rights of RRI as purchase WDA Holdings' shareholding in RRES;

(iv) a letter dated 12th April, 1983 to the Company from Walwyn Stodgell Cochran Murray Limited addressed to Greenwich in connection with the offer by Greenwich for the whole of the issued share capital of Minex incorporating a form of acceptance and agreement signed by Greenwich, Vam Limited and the Company under which such companies jointly and severally agreed to indemnify Walwyn Stodgell Cochran Murray Limited against any liability arising by reason of, inter alia, any mis-statement contained in a prospectus of Greenwich dated 12th April, 1983 relating to a public offering by Greenwich of units consisting of common shares and warrants;

(v) two Agreements dated 23rd November, 1983 between SNC (1) and the Company (2) relating to the acquisition by the Company from SNC of 538 shares in Robertson Research (U.S.) Inc. and 960 ordinary shares in Robertson Research Canada Limited respectively for an aggregate consideration of £227,250 satisfied by the issue, credited as fully paid, of 225,000 Ordinary shares of 5p each in the Company;

(vi) an Agreement dated 12th March, 1984 between the Company (1), RRI (2), WDA (3) and WDA Holdings (4) under which RRI, conditional upon the admission of the Ordinary Share capital of the Company, issued and now being issued, to the Official List, agreed to purchase at the direction of the Company the 75,000 Preferred Ordinary shares of £1 in RRES owned by WDA Holdings and the 250,000 Cumulative Redeemable Preference shares of £1 in RRES owned by WDA in consideration of the issue by the Company to WDA, credited as fully paid, of 65,000 Ordinary Shares as at the date hereof;

(vii) a Deed dated 14th March, 1984 between the Company (1), SNC (2) and the Governor and Company of Bank of Scotland (3) under which the Company has agreed, pending the repayment by it of an outstanding credit facility from Royal Bank of Canada, London, to indemnify SNC against any liability arising out of SNC's guarantee of the obligations of the Company relating to such facility and Bank of Scotland has agreed to indemnify SNC against any liability in respect of its guarantees of certain obligations of Robertson Research (U.S.) Inc. and Robertson Research Canada Limited pending the substitution of Bank of Scotland as the guarantor thereof; and

(viii) the Purchase and Subscription Agreement referred to in paragraph 4 above.

9. Taxation

(a) The directors have been advised by Ernst & Whinney and Aston, Parkinson & Gadd that the Company is not a close company within the meaning of the Income and Corporation Taxes Act 1970.

(b) Clearance has been received under Section 464 of the Income and Corporation Taxes Act 1970 in respect of the capitalisation issue of the Company and certain other matters referred to in paragraph 1(b) above and this Offer for Sale.

(c) The directors have been advised by Ernst & Whinney and Aston, Parkinson & Gadd that no material liability for capital transfer tax is likely to fall upon the Company or any of its subsidiaries.

10. General

(a) Neither the Company nor any of its subsidiaries is engaged in any litigation or arbitration of material importance nor, so far as the directors are aware, is there any litigation or claim of material importance pending or threatened against the Company or any of its subsidiaries.

(b) Ernst & Whinney and Aston, Parkinson & Gadd have given and have not withdrawn their written consents to the issue of this Offer for Sale with the inclusion herein of their joint report, their joint letter concerning the profit forecast and the references thereto and to their advice on taxation referred to in paragraphs 9(a) and 9(c) above and their names in the form and context in which each is respectively included.

(c) Warburgs has given and has not withdrawn its written consent to the issue of this Offer for Sale with the inclusion herein of its letter concerning the profit forecast and the references thereto and its name in the form and context in which each is respectively included.

(d) The expenses of this Offer for Sale including capital duty, professional fees, printing costs and the application for grant of listing are estimated to amount to approximately £500,000 (excluding value added tax) and are payable by the Company.

WORLD STOCK MARKETS

Indices

NEW YORK — DOW JONES

	Mar. 16	Mar. 15	Mar. 14	Mar. 13	Mar. 12	1983-84 High	1983-84 Low	Since Compiln High	Since Compiln Low
Industrials	1184.36	1157.40	1183.05	1164.78	1158.58	1287.20	1031.84	1287.20	41.22
H'me Bonds	69.24	69.22	69.39	[illegible]	69.12	77.04	[illegible]	[illegible]	[illegible]
Transport	518.81	513.99	518.37	511.77	510.96	[illegible]	[illegible]	[illegible]	[illegible]
Utilities	127.60	126.88	126.25	126.26	126.15	[illegible]	[illegible]	[illegible]	[illegible]
Trading Vol 000's	118,000	[illegible]	[illegible]	[illegible]	84,470	[illegible]	[illegible]	[illegible]	[illegible]

Day's high 1197.94 (1177.84) low 1176.19 (1150.23)

	Mar. 9	Mar. 2	Feb. 24	Year ago (approx)
Industrial div. yield %	4.85	4.71	4.75	4.86

STANDARD AND POORS

	Mar. 16	Mar. 15	Mar. 14	Mar. 13	Mar. 12	1983-84 High	1983-84 Low	Since Compil'n High	Since Compil'n Low
Industr'ls	180.21	177.91	177.12	177.16	176.65	194.84	154.95	194.84	3.62
Comp'site	159.27	157.41	156.77	156.78	156.34	172.65	138.34	172.65	4.40

	Mar. 14	Mar. 7	Feb. 29	Year ago (approx)
Industrial div. yield %	4.05	4.09	4.01	4.34
Industrial P/E ratio	12.00	11.81	12.02	12.82
Long Gov. Bond yield	12.24	12.15	11.98	10.66

N.Y.S.E. ALL COMMON

Mar. 16	Mar. 15	Mar. 14	Mar. 13	1983-84 High	1983-84 Low
91.73	90.67	90.32	90.32	99.63	80.02

Rises and Falls

	Mar. 16	Mar. 15	Mar. 14
Issues Traded	1,984	1,918	1,957
Rises	1,137	818	709
Falls	419	644	802
Unchanged	428	460	446
New Highs	24	15	9
New Lows	29	21	35

MONTREAL

	Mar. 16	Mar. 15	Mar. 14	Mar. 13	1983-84 High	1983-84 Low
Industrial	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Combined	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TORONTO Composite	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

NEW YORK ACTIVE STOCKS

Friday	Stocks traded	Closing price	Change on day		Stocks traded	Closing price	Change on day
Gulf Oil	[illegible]	[illegible]	[illegible]	Ford Motor	[illegible]	[illegible]	[illegible]
IBM	[illegible]	[illegible]	[illegible]	General Elec	[illegible]	[illegible]	[illegible]
Superior Oil	[illegible]	[illegible]	[illegible]	General Motors	[illegible]	[illegible]	[illegible]
Fst Empires	[illegible]	[illegible]	[illegible]	Am Express	[illegible]	[illegible]	[illegible]
AT&T	[illegible]	[illegible]	[illegible]	Merrill Lynch	[illegible]	[illegible]	[illegible]

World indices

	Mar. 16	Mar. 15	Mar. 14	Mar. 13	1983-84 High	1983-84 Low
AUSTRALIA All Ord. (1/1/80)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Metals & Mins. (1/1/80)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AUSTRIA Credit Aktien (2/1/62)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
BELGIUM Belgian SE (31/12/63)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
DENMARK Copenhagen SE (3/1/83)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
FRANCE CAC General (31/12/82)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ind Tendance (30/12/83)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
GERMANY FAZ-Aktien (31/12/58)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Commerzbank (1/12/53)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
HONG KONG Hang Seng Bank (31/7/64)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
ITALY Banca Comm Ital. (1972)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
JAPAN** Nikkei-Dow (16/5/49)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Tokyo SE New (4/1/68)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
NETHERLANDS ANP-CBS General (1970)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
ANP-CBS Indust (1970)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
NORWAY Oslo SE (4/1/83)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SINGAPORE Straits Times (1966)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SOUTH AFRICA Gold (1958)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Industrial (1958)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SPAIN Madrid SE (30/12/83)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SWEDEN Jacobson & P. (1/1/58)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SWITZERLAND Swiss Bank Cpn. (31/12/58)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
WORLD Capital Intl. (1/1/70)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

(**) Saturday March 10: Japan Nikkei-Dow [illegible], TSE [illegible].

Base values of all indices are 100 except Australia All Ordinary and Metals—500, NYSE All Common—50; Standard and Poors—10; and Toronto—1,000; the last named based on 1975. † Excluding bonds. ‡ 400 Industrials. § 400 Industrials plus 40 Utilities, 40 Financials and 20 Transports. c Closed. u Unavailable.

OVER-THE-COUNTER Nasdaq National Market closing prices

Continued from Page 22

Stock	Sales (Hunds)	High	Low	Last	Chng
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

THE WEEK IN THE COURTS

Postponing the privacy question

EVERYBODY recognises that privacy must be protected. Everybody believes in freedom of the press. But there remain areas of perpetual conflict between the need to protect privacy and the need to maintain this freedom.

The Court of Appeal's decision last week in *Francome and Another v Mirror Group Newspapers Ltd and Others* (*) illustrates aspects of that conflict. But anyone who considers and comments on that decision must resist staunchly the temptation to read too much into it.

It was a decision about interlocutory injunctions, about the appropriate orders to make in litigation between the parties so as to preserve their rights until the hearing of the trial. As has been said by Lord Diplock in *American Cyanamid Co v Ethicon Ltd* (†), "it is no part of the court's function at this stage of the litigation . . . to decide difficult questions of law which call for detailed argument and mature consideration."

Mr and Mrs Francome have brought proceedings against the proprietors of the Daily Mirror, its editor and two reporters claiming damages for trespass and breach of confidence. Over three months or more, 38 tapes spanning 20 hours were obtained by bugging telephone calls made to or from Mr Francome's home in Berkshire. Whoever made the tapes offered them to the Daily Mirror. Mr Francome became aware of the tapes as a result of an approach from newspaper reporters seeking to confirm their authenticity.

The tapes are alleged to reveal breaches by Mr Francome of the rules of horse racing.

Mr Justice Park ordered two interlocutory injunctions. One required the newspaper to reveal the identity of the persons who had offered to sell the tapes to it. The other prevented the newspaper from publishing any article based on the contents of the telephone conversations recorded in the tapes.

The Court of Appeal discharged the first injunction. As a result, the name or names of the supplier or suppliers of the tapes remain, for now, secret, as does the identity of the phone tapper.

The Court of Appeal upheld in essence the second injunction. The Daily Mirror cannot, for now, publish any article containing any details of the tape-recorded telephone conversations. With permission from the appropriate minister, the Mirror can make available to the police or the Jockey Club the tapes or any information in them. The newspaper can also rely on the tapes as evidence in support of any plea of justification for any other prima facie defamatory statements it might wish to publish about Mr Francome.

Superficially, the Court of Appeal's decision might seem to support a newspaper's right to withhold the identity of its sources of information and an individual's right to protect the privacy of his telephone conversations.

But, as Sir John Donaldson, the Master of the Rolls, stressed in his judgment, the court was not at present concerned to "determine the final rights of the parties," but its duty was "to make such orders, if any, as were appropriate pending the trial of the action."

Sir John said that even if Mr and Mrs Francome were ultimately held to be entitled to an order that the Mirror reveal the identity of the phone tapper or the supplier of the tapes, they would not be substantially prejudiced if they had to wait until the trial for this order. Furthermore, if Mr Justice Park's interlocutory injunction about disclosure of the identity remained in force, any argument at the trial that Mr and Mrs Francome were not entitled to such an order would be "wholly academic."

The issue of a newspaper's immunity from disclosure of its sources of information still remains open to legal argument at the trial; and in the light of the speeches of the majority of the law lords in *BSC v Granada Television* (‡), the trial court's likely decision on this issue is unpredictable.

Likewise, the interlocutory injunction which remains in force for now, does not prevent important issues being raised, argued and decided at the trial about the legality of any use by the Mirror of the tapes or their contents.

In his erudite judgment in *Malone v Commissioner of Police of the Metropolis (No 2)* (**) Sir Robert Megarry, the Vice-Chancellor of the Chancery Division of the High Court, said that "telephone tapping is a subject which cries out for legislation."

Article 8 of the European Convention on Human Rights 1950 provides that "everyone has the right to respect for his private and family life, his home and his correspondence".

English law has yet to embody these provisions explicitly in any legally binding rules, regulations, statutes or code. Is it too much to hope that the combined talents of the Law Commission and the Parliamentary Counsel Office will soon achieve this commendable aim?

Sir Robert said in the course of his judgment in the Malone case that English law conferred neither a general right of privacy nor a particular right of privacy to hold a telephone conversation in one's home without molestation.

The trial in the Francome case will reveal whether the categories of confidentiality in English law are closed or will be extended.

It will also test the extent of the dictum that "there is no confidence as to the disclosure of iniquity", a dictum which Lord Denning has said in *Initial Services Ltd. v Putterill* (††) extends "to any misconduct of such a nature that it ought in the public interest to be disclosed to others".

According to Sir John Donaldson, it was impossible to see what public interest could be served by publishing the contents of the tapes in the Daily Mirror before the trial which could not equally be served by giving them to the police or to the Jockey Club.

It has been recognised that there is in general terms a public interest in the flow of information. But does Sir John's remark mean that there are categories of information of public interest which may flow freely to such organisations as the police or the Jockey Club but may not be revealed to the public through the media? How extensive are those categories? To what extent do these categories reduce the free flow of information to the public through the media into a tedious and trivial trickle?

**TLR 17 March 1984. †1975 AC 396. ‡1981 1 All ER 452. **1979 2 All ER 620. ††1968 1 QB 396.*

Justinian

Accountants set up expert witness team for disputes

BY RAYMOND HUGHES

TOUCHE ROSS, the City accounting is offering a new service — forensic accountancy. This might be defined as accountancy in the service of the law.

Accountants have long found themselves involved in litigation as expert witnesses or advisers; what Touche Ross has done is to formalise the position by setting up a multi-discipline team drawn from the various areas of the firm's activities.

The team, headed by Mr Kenner Beecroft, will number about 15 and include two partners from the audit division, one each from tax and management consultancy, and managers from the divisions.

Touche Ross's view is that accountancy involvement in such matters as a claim for loss of profits following a fire, a financial settlement after premature ending of a service contract, or allegations of fraud, calls for specialist skills that can best be provided with a team back-up.

The firm says that its service is designed specifically for the insurance industry, the legal profession, the public sector, and companies with their own insurance departments.

It envisages its team's members being called in as expert witnesses in court cases and as advisers in discusssions to settle disputes before they go to court.

FT UNIT TRUST INFORMATION SERVICE

AUTHORISED UNIT TRUSTS

Insurances—continued

Colonial Mutual Group

24 Ludgate Hill, EC4P 4OD. 01-240 0881

Capital Life Assurance

Key Inv Fd	—	130.48	....	—
PcmKrInvFd	—	130.01	....	—
Equity Fd	113.81	121.80	....	—
Fxd Int Fd	109.34	115.09	....	—
PropityFd	103.49	108.54	....	—
Cash Fd	101.P1	107.27	....	—
Managd Fd	118.91	125.17	....	—
Col Mut Life (Pension Annuities)				
MnnCpA/6	100.67	112.29	+0.75	—
ManInvA/0	107.54	112.80	+0.84	—

Commercial Union Group

St Helens, 1 Undershaft, EC3. 01-283 7500

INSURANCES

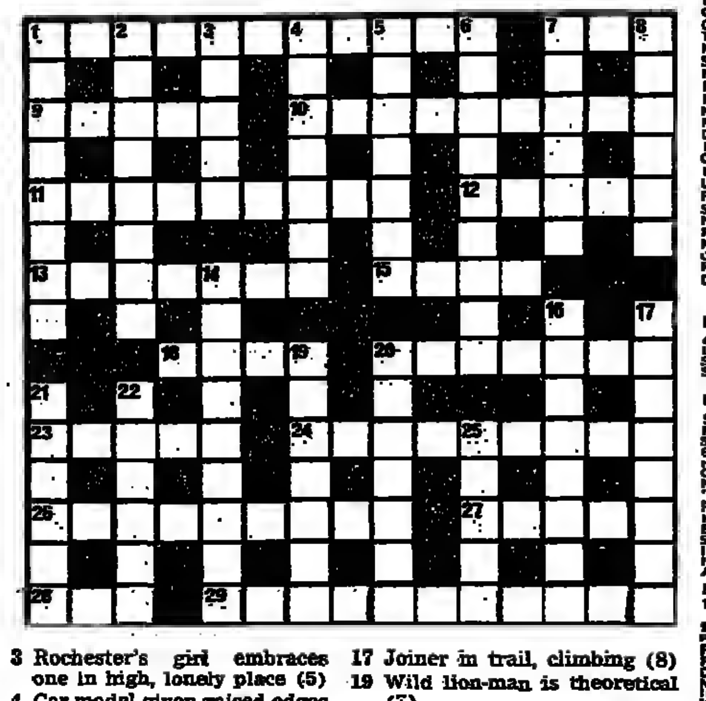
Offshore & Overseas—continued

Money Market Trust Funds

Money Market Bank Accounts

Continued on Page 29

F.T. CROSSWORD PUZZLE No. 5,370



ACROSS

1 Job backstage for Soames Forsyte? . . . (8-3)
7 . . . retrograde step in ballet for the fool (3)
9 Straight - line sort of monarch? (5)
10 Juice-tins, badly knocked about, in no fair condition (9)
11 Take pride in semi somehow—the outer covering is ours (9)
12 Declare time in Dodge (5)
13 Lowdale development given grant (7)
15 Religious exercises in which a gentile could be wrong way round? (4)
18 Family group of Gaelic languages (4)
20 Is this surgery for features-editors? (7)
23 Spear - making conferences perhaps (5)
24 She could be attached to Douglas in the three-legged race (9)
26 Land of Hope and Glory to the publishers? (9)
27 Come up — injunction tonight, we hear (5)
28 Monetary unit as state-tender? (3)
29 Violent sequel to a curtain-lecture? (6-5)

DOWN

1 Standard means of churning cheese (8)
2 eg Olive on the pitch—slick reserve? (3-5)
3 Rochester's girl embraces one in high, lonely place (5)
4 Car-model given raised edges and cut to shape (7)
5 Splendour of joke in spring-time (7)
6 Lost again, suffering—from this? (9)
7 Slice of Sunday meat (6)
8 Topers can be fast in bars (6)
14 Nicely established in 2? (4-3-2)
16 Mystifying means of getting striker out (8)
17 Joiner in trail, climbing (8)
19 Wild lion-man is theoretical (7)
20 Bird bitter in some measure—fuss follows (7)
21 Spring and things? (6)
22 The buck stops here! (6)
25 Where harbour - assistants remove freight initially (5)

The solution to last Saturday's prize puzzle will be published with names of winners next Saturday

INSURANCE & OVERSEAS MANAGED FUNDS

Barclays Life Ass.—Cont.

Black Horse Life Ass. Co. Ltd.
71, Lombard St., EC3. 01-623 1288

British National Life Assurance Co. Ltd.
Haywards Rd, Haywards Heath. 0444 414111

Canada Life Group
2-6, High St., Potters Bar. Herts P. Bar 51122

G.T. Management Ltd.
16 Finsbury Circus, Lond EC2M 7DJ 01-628 0131

Assicurazioni GENERALI S.p.A.
117, Fenchurch St., EC3M 5DY 01-488 0733

General Portfolio Life Ins. PLC
Crossbrook St., Cheshunt, Herts. Waltham X 31971

Gresham Unit Ass. Ltd.
2-6, Prince of Wales Rd B'mouth 0202 767655

Lloyds Life Assurance—cont.
Gartmore Funds—Series A

London A'deen & Nthn. Mtl. Assur. Ltd.
129 Kingsway, London, WC2B 6NF. 01-404 0393

London Indemnity & Gnl. Ins. Co. Ltd.
18-20, The Forbury, Reading 583511

London Life Linked Assur. Ltd.
100, Temple St., Bristol, BS1 6EA. 0272 279179

London & Manchester Gp.
Winslade Park, Exeter EX5 1DS 0392 52155

Property Growth Assur. Co. Ltd.

OFFSHORE AND OVERSEAS

World Wide Growth Management
10a, Boulevard Royal, Luxembourg

Worldwide Gth Fd	$13.01		+0.04	—

Inv Adv M. & G. Inv. Mngt., Ltd., London.

Wren Commodity Management Ltd.
10, St. George's St., Douglas IoM 0624 25015

Wren Com Fund	23.0	24.8		—
Chinese Fund	62.7	65.3		—
Precious Metal Fund	145.5	151.2		—
Vanguard Cmdy. Fd	34.5	35.4		—
Financial Futures Fd.	73.2	76.2		—
Wren Intl Fed.*	$0.814	0.847		—

NOTES

Prices are in pence unless otherwise indicated and those designated $ with no prefix refer to U.S. dollars. Yields % (shown in last column) allow for all buying expenses. a Offered prices include all expenses. b Today's prices. c Yield based on offer price. d Estimated. g Today's opening price. h Distribution free of UK taxes. p Periodic premium insurance plans. s Single premium insurance. x Offered price includes all expenses except agent's commission. y Offered price includes all expenses if bought through managers. Z Previous day's price. ¶ Guernsey gross. ♦ Suspended. ◆ Yield before Jersey tax. † Ex-subdivision. ‡‡ Only available to charitable bodies. ♦ Yield column shows annualised rate of NAV increase.

FT LONDON SHARE INFORMATION SERVICE

BRITISH FUNDS

Interest Due		Stock	Price £	Last xd	Yield Int.	Yield Red.
		"Shorts" (Lives up to Five Years)				
22N	22May	Exchequer 14pc. 1984	100⅜	17.10	13.88	8.72
19D	19Jun	Exch. 3pc 1984	98⅝	14.12	3.04	8.87
26Mar	26S	Treasury 12pc 1984	101½xd	[illegible]	11.82	8.93
22Aug	22F	Treasury 15pc 1985	105⅛	[illegible]	14.28	9.13
22S	22Mar	Exch. 12pc Cnv. '85	102⅝xd	[illegible]	11.69	9.22
21N	21My	Treasury 3pc 1985	94⅛	17.10	3.19	8.40
15Jan	15Jul	Treasury 11½pc 1985	102⅝	9.12	11.21	9.37
3 Mar	3 Sept	Treas 8¾pcCnv '85	99¼	24.1	8.82	9.28
22May	22N	Exch. 12¼pc 1985	104⅛	17.10	11.78	9.52
25 Aug.	25F	Exch. 11¼pc '86	103⅛	19.1	11.34	9.60
—		Treas 10pc Cnv 1986	102xd	5.3	9.80	8.93
19N	19May	Treasury 3pc 1986	88⅛	13.10	3.40	9.05
19 Nv	19 My	Exch. 10½pc Cv '86	101⅞	13.10	10.31	9.50
12D	12Jun	Treasury 12pc '86	104¼	7.11	11.52	9.86
10Ja	10Jul	Treasury 8¾pc '84-86‡‡	97⅞	5.12	8.68	9.53
29Apr	29Oct	Exch. 14pc 1986	108½	22.9	12.90	10.18
21 May	21 N	Exch 2½pc 1986	85¼	18.1	2.93	8.79
22Jul	22Jan	Exch. 13¼pc 1987	107⅛	16.12	12.33	10.14
10 Fb	10 Ag	Treas 10¼pc Cnv '87	100¼	4.1	10.17	9.92
24 Fb	24 Aug	Exchequer 2½pc 1987	83¾	18.1	2.99	8.90
Oct 6	Apr 6	Exch. 10½pc 1987	101xd	1.3	10.40	10.12
1N	1May	Funding 6½pc '85-87‡‡	91½	26.9	7.10	9.72
12 Jun	12 D	Treas 10pc 1987	99½	1.3	10.05	10.15
14Ja.	14Jul	Treasury 3pc 1987	82¼	8.12	3.63	9.13
3 May	3N	Treas 12pc 1987	104⅞	27.9	11.48	10.43
26Jul	26Ja	Treasury 7¾pc '85-88‡‡	93⅞	20.12	8.26	9.67
10 My	10 Nv	Exch 10½pc '88	100⅝	4.10	10.44	10.32
14 Jun	14 D	Treas 9¾pc Conv '88	98⅛	—	9.90	10.12
1Ja	1Jul	Transport 3pc '78-88	79⅞	25.11	5.76	8.64
25Ap.	25Oct.	Treas. 9½pc '88	96⅞	19.9	9.81	10.44
22Aug	22Feb	Treasury 11½pc 1989	104⅛	16.1	11.04	10.39
		Five to Fifteen Years				
14 Dc	14 Jn	Treas 10½pc 1989	103	7.11	10.48	10.42
1 Feb	1 Aug	Exch 10pc 1989	100	—	10.25	10.58
1Aug	1Feb	Do. 10pc '89 6 (£40pd)	40⅛	—	10.20	10.42
15Ap	15Oct	Treasury 5pc '86-89	81¼xd	8.9	6.13	9.30
15Jul.	15Ja.	Treasury 13pc 1990‡‡	111¾	9.12	11.80	10.75
22Sept	22Mar	Exch. 12½pc 1990	107¼xd	14.2	11.59	10.69
15D	15Jun	Treasury 8¼pc '87-90‡‡	92⅞	8.11	9.14	10.40
—		Treas 10pc Cv '90 (£65pd)	98¼	—	10.22	10.44
10Jul	10Ja	Treasury 11¾pc 1991	106½	5.12	11.27	10.82
5Oct.	5Ap.	Funding 5¾pc '87-91‡‡	79¼xd	1.3	7.19	9.74
25Ap.	25Oct.	Exch. 11pc 1991	105⅜	19.9	10.85	10.72
22Jul.	22Ja.	Treasury 12¾pc '92‡‡	112¼	16.12	11.52	10.78
21Aug.	21Fb.	Treasury 10pc 1992	98⅛	16.1	10.24	10.44
25Fb.	25Aug.	Exch. 12¼pc '92	108⅜	19.1	11.30	10.85
22Mar.	22S	Exchequer 13½pc '92	113¾xd	14.2	11.86	10.95
14 Jan	14 Jy	Treasury 12½pc '93‡‡	111¾	8.12	11.41	10.84
15Mar.	15S	Funding 6pc 1993‡‡	76	7.2	7.90	9.98
23May	23N	Treasury 13¾pc 1993‡‡	121¾	17.10	11.77	10.88
1 Mar	1 Sep	Treasury 14½pc '94‡‡	122¼	24.1	11.88	10.91
27O	27Apr	Exchequer 13½pc 1994	120½	20.9	11.72	10.97
22F	22Aug	Exch. 12½pc 1994	110¼	16.1	11.38	10.89
17May	17N	Treasury 9pc '94‡‡	94	11.10	9.89	10.42
25Jul	25Ja	Treasury 12pc '95	108½	19.12	11.24	10.91
1N	1May	Gas 3pc '90/95	64	26.9	4.77	8.14
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21Ja	21Jul	Exch. 10¼pc 1995	98⅜	15.12	10.55	10.69
15May	15N	Treasury 12¾pc '95‡‡	117⅞	10.10	11.28	10.75
22Jul.	22Ja.	Treas. 14pc '96	122⅛	16.12	11.77	10.94
15S	15Mar	Treasury 9pc '92/96‡‡	90⅝	7.2	9.93	10.38
3N	3May	Treasury 15¼pc '96‡‡	134⅝	27.9	11.89	10.89
15 My	15 Nv	Exchequer 13¼pc '96‡‡	121⅛	16.12	11.38	10.68
1Ap	1Oct	Redemption 3pc 1986-96	67½xd	25.8	4.44	6.90
22Jul	22Ja	Treasury 13¼pc '97‡‡	119½	16.12	11.28	10.71
21Aug	21F	Exchequer 10½pc 1997	100⅝	16.1	10.54	10.55
1Mar	1S	Treasury 8¾pc 1997‡‡	88⅞	24.1	9.89	10.35
27Ap	27Oct	Exch. 15pc 1997	134½	20.9	11.67	10.91
July 19	—	Exch 9¾pc '98 (£25pd)	25¼	—	10.27	10.44
1N	1May	Treasury 6¾pc '95-98‡‡	78	26.9	8.95	10.04
30Mar	30S	Treas. 15½pc '98‡‡	135½xd	22.2	11.60	10.85
20May	20N	Exch. 12pc 1998	113¾	14.10	10.93	10.65
15Jul	15Ja	Treasury 9½pc 1999‡‡	95⅞	9.12	10.08	10.26
		Over Fifteen Years				
26S	26Mar	Exch. 12¼pc 1999	111¼xd	20.2	11.78	10.63
19N	19May	Treasury 10½pc 1999	103¼	13.10	10.47	10.46
—		Convers'n 10¼pc 1999	101¼	—	10.41	10.44
14Ja	14Jul	Treas. 13pc 2000	120⅞	8.12	10.96	10.58
22N	22May	Treas. 14pc '98-01	128	17.10	11.34	10.73
22Jul	22Ja	Exch. 12pc '99-02	112⅜	16.12	10.86	10.57
25Ja	25Jul	Treas. 13¾pc 2000-03	126	19.1	11.09	10.62
19S	19Mar	Treasury 11½pc '01-04	110¼xd	13.2	10.43	10.22
14Ja	14Jul	Funding 3½pc '99-04	50	8.12	7.09	8.95
21May	21N	Treasury 12½pc '03-05	123	17.10	10.51	10.24
5Ap	5Oct	Treasury 8pc '02-06‡‡	84½xd	1.3	9.43	9.66
22Jul	22Ja	Treasury 11¾pc 03-07	115	16.12	10.38	10.14
26S	26Mar	Treas. 13½pc '04-08	127¼xd	20.2	10.60	10.26
10Mar	10S	Treasury 5½pc '08-12‡‡	62½	2.2	8.83	9.27
26Jul	26Ja	Treasury 7¾pc '12-15‡‡	83⅝	20.12	9.39	9.51
12 Jun.	12D	Exch. 12pc '13-'17	124	7.11	9.94	9.82
		Undated				
1F,	1Aug.	Consols 4pc	40⅜	28.12	9.94	—
1Jun	1D	War Loan 3½pc‡‡	37⅛	25.10	9.67	—
1Ap.	1Oct.	Conv. 3½pc '61 Aft.	43½xd	24.2	8.02	—
5Ap	5Oct	Treasury 3pc 66 Aft.	30½xd	1.3	9.83	—
5 JaApJulOc		Consols 2½pc	25½xd	1.3	9.76	—
1Ap	1Oct	Treasury 2½pc	25¼xd	25.8	9.87	—

Index-Linked

Interest Due		Stock (b)	Price £	Last xd	(1)	(2)
30Mar	30Sept	Tr. 2pc '88 (297.1)	101¼xd	24.8	3.84	4.67
25 July		Do. 2pc '90 (333.9)	87⅝	—	3.99	4.56
16 Mar.	16 S.	Do. 2pc '96 (267.9)	101⅝xd	8.2	3.62	3.90
22 May	22 N	Do. 2½pc '99 (322.9)	96½	17.10	2.89	3.15
24 Mr	24 Spt	Do. 2½pc '01 (308.8)	92½xd	16.1	3.41	3.64
20May	20N	Do. 2½pc '03 (310.7)	92½	14.10	3.38	3.59
19 Ja	19 Jul	Do. 2pc '06 (274.1)	95½	13.12	3.25	3.43
20May	20N	Do. 2½pc '09 (310.7)	92⅛	14.10	3.22	3.40
23F	23Aug	Do. 2½pc '11 (294.1)	96⅞	17.1	3.18	3.34
26Jul	26Jan	Do. 2½pc '16 (322.0)	88½	20.12	3.12	3.27
16 Ap	16 Oct	Do. 2½pc '20 (327.3)	87¼xd	—	3.04	3.18

Prospective real redemption rate on projected inflation of (1) 10% and (2) 5%. (b) Bracketed figures show R.P.I. base month for indexing, i.e. 8 months prior to issue. R.P.I. for February 1984: 344.0

INT. BANK AND O'SEAS GOVT. STERLING ISSUES

28Ja	28Jly	Australia 13½pc 2010	229	[illegible]	12.53	11.42
26 Ap	26 Oct	Do 11¾pc Ln 2015	103⅛	—	11.24	11.21
25Mr	25S	Euro Inv Bk 11pc Ln 2002	98¾xd	[illegible]	11.13	11.15
1My	1N	Finland 14½pc Ln 1986	107⅞	[illegible]	13.44	10.26
8Ja	8Jy	Int-Am Dev Bk 12¾pc 2003	109¼	[illegible]	11.70	11.59
6My	6N	Int. Bank 13½pc 1986	106⅛	[illegible]	12.71	10.15
31Mr	30S	Do. 14pcLn 1987	109⅜	[illegible]	12.80	10.31

CORPORATION LOANS

COMMONWEALTH AND AFRICAN LOANS

LOANS

Building Societies

Public Board and Ind.

Financial

FOREIGN BONDS & RAILS

AMERICANS

CANADIANS

BANKS, H.P. AND LEASING

Hire Purchase, Leasing, etc.

BEERS, WINES AND SPIRITS

BUILDING INDUSTRY, TIMBER AND ROADS

CHEMICALS, PLASTICS

DRAPERY AND STORES

DRAPERY—Continued

ELECTRICALS

ENGINEERING

ENGINEERING—Continued

FOOD, GROCERIES, ETC.

HOTELS AND CATERERS

HOTELS—Continued

INDUSTRIALS (Miscel.)

مكتبة الأصل

مكتامنة الأصل

INDUSTRIALS—Continued

[illegible]

INSURANCE

[illegible]

LEISURE

[illegible]

LEISURE—Continued

[illegible]

MOTORS, AIRCRAFT TRADES

Motors and Cycles

[illegible]

Commercial Vehicles

[illegible]

Components

[illegible]

Garages and Distributors

[illegible]

NEWSPAPERS, PUBLISHERS

[illegible]

PAPER, PRINTING, ADVERTISING

[illegible]

PROPERTY

[illegible]

PROPERTY—Continued

[illegible]

SHIPPING

[illegible]

SHOES AND LEATHER

[illegible]

SOUTH AFRICANS

[illegible]

TEXTILES

[illegible]

TOBACCOS

[illegible]

TRUSTS, FINANCE, LAND

Investment Trusts

[illegible]

INVESTMENT TRUSTS-Cont.

[illegible]

Finance, Land, etc.

[illegible]

OIL AND GAS

[illegible]

OIL AND GAS—Continued

[illegible]

OVERSEAS TRADERS

[illegible]

PLANTATIONS

Rubbers, Palm Oil

[illegible]

Teas

[illegible]

MINES

Central Rand

[illegible]

Eastern Rand

[illegible]

Far West Rand

[illegible]

O.F.S.

[illegible]

Finance

[illegible]

Diamond and Platinum

[illegible]

Central African

[illegible]

MINES—continued

Australians

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's
—	♥ACM 20c	16	—	—	—	—
—	♥Allstate Expl NL	33	—	—	—	—
—	♥Asia Oil & Mins.	$4\frac{1}{2}$	—	—	—	—
—	♥Aust. Hydrocarbon NL	18	—	—	—	—
—	♥Australis Mng NL	$28\frac{1}{2}$	—	—	—	—
—	♥Balmoral Res	33	—	—	—	—
—	♥Black Hill Mins.	33	—	—	—	—
December	♥Bond Corp	100	—	Q10c	0.7	6.8
Nov Apr	♥Bougainville 1 Kina	175	11.3	Q15.5c	♦	6.0
May Nov	♥CRA $2	372	11.3	Q12c	♦	2.1
—	♥Carr Boyd 20c	81	—	—	—	—
—	♥Central Kalgoorlie	30	—	—	—	—
—	♥Central Pacific	$22\frac{1}{2}$	—	—	—	—
—	♥Cons Gold Mng Areas	4	—	—	—	—
—	♥Coopers Res N L	$7\frac{1}{2}$	—	—	—	—
—	♥Crusader Oil	188	—	—	—	—
—	♥Cultus Pac NL	$13\frac{1}{2}$	—	—	—	—
—	♥Eagle Corp 10c	$10\frac{1}{2}$	5.9	—	—	—

[illegible]

Tins

[illegible]

Miscellaneous

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's
—	♥Admiral Mines	18	—	—	—	—
—	♥Anglo-Dominion	75	—	—	—	—
—	♥Anglo Utd. Dev.	58	—	—	—	—
—	♥Centenial Minerals	365	—	—	—	—
—	♥Colby Res Corp	170	—	—	—	—
Aug. Feb.	Cons. Murch. 10c.	935	16.1	100c	♦	6.3
Feb Aug	Eastern Trans Cons 50c	$£19\frac{1}{2}$	30.12	Q85c	4.9	2.2
Sept Feb	Hampton Areas 10p	237	30.12	3.75	2.1	2.1
—	♥Highwood Res	205	—	—	—	—
May Aug	Homestake Mining $1	$£23\frac{3}{4}$	2.2	Q20c	—	0.6
October	Northgate C$1	335	9.77	—	—	—
Jan. July	R.T.Z.	678	31.10	17.0	2.9	1.6
Jan July	Do 9½%Cv Ln 95-2000	£147	31.10	Q9½%	—	F6.6
—	♥Sabina Inds C$1	92	—	—	—	—
—	♥Tara Expln. $1	950	—	—	—	—

NOTES

Unless otherwise indicated, prices and net dividends are in pence and denominations are 25p. Estimated price/earnings ratios and covers are based on latest annual reports and accounts and, where possible, are updated on half-yearly figures. P/Es are calculated on "net" distribution basis, earnings per share being computed on profit after taxation and unrelieved ACT where applicable; bracketed figures indicate 10 per cent or more difference if calculated on "nil" distribution. Covers are based on "maximum" distribution; this compares gross dividend costs to profit after taxation, excluding exceptional profits/losses but including estimated extent of offsettable ACT. Yields are based on middle prices, are gross, adjusted to ACT of 30 per cent and allow for value of declared distribution and rights.

- ● "Tap" Stock.
- * Highs and Lows marked thus have been adjusted to allow for rights issues for cash.
- † Interim since increased or resumed
- ‡ Interim since reduced, passed or deferred.
- ‡‡ Principal and interest tax-free to non-residents on application.
- ♦ Figures or report awaited.
- ♥ Not officially UK Listed; dealings permitted under Rule 163(4)(a)
- ⁂ USM; not listed on Stock Exchange and company not subjected to same degree of regulation as listed securities.
- †† Dealt in under Rule 163(3).
- ¢ Price at time of suspension
- ¶ Indicated dividend after pending scrip and/or rights issue: cover relates to previous dividend or forecast.
- ♦ Merger bid or reorganisation in progress.
- ♦ Not comparable.
- ♦ Same interim: reduced final and/or reduced earnings indicated.
- ‡ Forecast dividend; cover on earnings updated by latest interim statement.
- ‡ Cover allows for conversion of shares not now ranking for dividends or ranking only for restricted dividend
- ☆ Cover does not allow for shares which may also rank for dividend at a future date. No P/E ratio usually provided.
- ‖ No par value.

B Fr. Belgian Francs. Fr French Francs. ¢¢ Yield based on assumption Treasury Bill Rate stays unchanged until maturity of stock. a Tax free. b Figures based on prospectus or other official estimate. c Cents. d Dividend rate paid or payable on part of capital, cover based on dividend on full capital. e Redemption yield. f Flat yield. g Assumed dividend and yield. h Assumed dividend and yield after scrip issue. j Payment from capital sources. k Kenya. m Interim higher than previous total. n Rights issue pending. q Earnings based on preliminary figures. s Dividend and yield exclude a special payment. t Indicated dividend, cover relates to previous dividend, P/E ratio based on latest annual earnings. u Forecast dividend: cover based on previous year's earnings. v Subject to local tax. x Dividend cover in excess of 100 times. y Dividend and yield based on merger terms. z Dividend and yield include a special payment: Cover does not apply to special payment. A Net dividend and yield. B Preference dividend passed or deferred. C Canadian. D Issue price. E Minimum tender price. F Dividend and yield based on prospectus or other official estimates for 1983-84. G Assumed dividend and yield after pending scrip and/or rights issue. H Dividend and yield based on prospectus or other official estimates for 1984. K Figures based on prospectus or other official estimates for 1984. M Dividend and yield based on prospectus or other official estimates for 1983. N Dividend and yield based on prospectus or other official estimates for 1982-83. P Figures based on prospectus or other official estimates for 1983. Q Gross. T Figures assumed. Z Dividend total to date.

Abbreviations: xd ex dividend; xc ex scrip issue; xr ex rights; xa ex all; xd ex capital distribution.

REGIONAL AND IRISH STOCKS

The following is a selection of regional and Irish stocks, the latter being quoted in Irish currency

Albany Inv. 20p	77	+2	Fin. 13% 97/02	$£91\frac{1}{4}$	$+\frac{1}{4}$
Craig & Rose £1	900	.....	Alliance Gas	78	.....
Finlay Pkg. 5p	46	.....	Arnott	218	.....
Higsons Brew	117	+2	CPI Hldgs	82	.....
Holt (Jos) 25p	900	.....	Carroll Ind	120	.....
I.O.M. Stm. £1	145	.....	Hall (R. & H.)	64	−2
			Heiton Hldgs	21	−1
			Irish Ropes	53	.....
IRISH			Jacob (W. & R.)	58	.....
Exch. 12% 1985	$£98\frac{5}{8}$	.....	T M G	60	.....
Nat 9¾% 84/89	$£87\frac{1}{4}$	.....	Unidare	70xd	.....

For Bridgewater see Property

OPTIONS

3-month Call Rates

Industrials					
Allied Lyons	15	Hawker Sidd	38	Vickers	14
BOC Grp.	27	House of Fraser	26	Woolworth Hld.	50
B.S.R.	26	I.C.I	42		
Babcock	17	"Imps"	12	**Property**	
Barclays Bank	45	I.C.L.	$7\frac{1}{2}$	Brit. Land	11
Beecham	32	Ladbroke	23	Cap. Counties	16
Blue Circle	40	Legal & Gen.	45	Land Sec.	25
Boots	16	Lex Service	40	MEPC.	25
Bowaters	25	Lloyds Bank	50	Peachey	17
Brit. Aerospace	20	"Lots"	3	Samuel Props.	12
B.A.T.	15	Lucas Inds.	18	Sterling Guar.	4
Brown (J.)	3	"Mams"	14		
Burton Ord.	22	Mrks. & Spncr.	20	**Oils**	
Cadburys	11	Midland Bank	36	Bristol Oil & Min.	4
Comm. Union	16	N.E.I.	10	Brit. Petroleum	35
Courtaulds	11	Nat. West. Bank	60	Burmah Oil	17
Debenhams	14	P & O Dfd.	26	Charterhall	4
Distillers	22	Plessey	20	Premier	6
Dunlop	5	Racal Elect.	18	Shell	55
F.N.F.C.	$6\frac{1}{4}$	R.H.M.	8	Tricentrol	20
Gen. Accident	42	Rank Org. Ord.	24	Ultramar	60
Gen. Electric	16	Reed Intnl	40		
Glaxo	70	Sears	0	**Mines**	
Grand Met.	30	T.I.	22	Charter Cons.	24
G.U.S. 'A'	55	Tesco	16	Cons. Gold	58
Guardian	50	Thorn EMI	55	Lonrho	12
G.K.N.	20	Trusthouse	18	Rio T. Zinc	60
Hanson Tst.	17	Turner & Newall	10		
		Unilever	75		

"Recent Issues" and "Rights" Page 20

This service is available to every Company dealt in on Stock Exchanges throughout the United Kingdom for a fee of £700 per annum for each security

CURRENCIES, MONEY and CAPITAL MARKETS

FOREIGN EXCHANGES

Dollar firm but nervous

BY COLIN MILLHAM

The dollar finished the week on a firm note, although doubts continue to be expressed about the health of the U.S. economy and it remains an open question as to whether the U.S. currency can sustain its latest gains. The foreign exchanges were often confused and nervous, with European dealers tending to feel that the dollar should be pushed lower on economic fundamentals only to find New York traders more impressed by interest rates and hopes of a lower budget deficit, leading to sudden demand for the currency during the afternoon.

Figures indicating the pace of U.S. economic growth did nothing to clarify the position. Retail sales for February were published on Tuesday, and showed a surprising fall of 0.2 per cent, compared with an expected increase of 0.75 per cent.

A rise of 2.2 per cent in the January figure had been one of the statistics pointing to very fast growth, and causing considerable concern about the possible inflationary impact of overheating in the economy.

U.S. industrial production in February painted a rather different picture however, rising by 1.2 per cent compared with 1.1 per cent in January, and against forecasts in the region of 0.75 per cent.

Speculation that the Federal Reserve is in the process of tightening its monetary policy and pushing up interest rates was a major factor behind the dollar's recovery, and this did not appear to change even when the weekly M1 money supply fall of $1.4bn was greater than expected.

Another reason for the rise of the dollar well above the important DM 2.60 level was hope that the very large Budget deficit can be reduced. This followed agreement between the Reagan Administration and Republican leaders in Congress for a three-year $150bn cost cutting and revenue raising package.

Sterling closed a little changed on balance from a week earlier, as the reduction in London interest rates was balanced by favourable reaction to Tuesday's Budget. The trade-weighted index rose to 80.9 from 80.8 as the pound fell to $1.4440 from $1.4605, but rose to DM 3.7975 from DM 3.77, amid suggestions that foreign demand for gilts and UK equities should sustain demand for sterling.

£ in New York latest

	March 16	Prev. close
Spot	$1.4465-4475	$1.4565-4580
1 month	0.21-0.23 dis	0.16-0.20 dis
3 months	0.63-0.67 dis	0.64-0.66 dis
12 months	3.00-3.05 dis	3.05-3.10 dis

£ forward rates are quoted in U.S. cents discount.

FORWARD RATES AGAINST STERLING

	Spot	1 month	2 month	6 month	12 month
Dollar	1.4470	1.4491	1.4533	1.4606	1.4775
D-Mark	3.7975	3.7866	3.7696	3.7434	3.7013
French Franc	11.6925	11.7553	11.8925	12.0907	12.4540
Swiss Franc	3.1175	3.1022	3.0779	3.0434	2.9811
Japanese Yen	326.76	326.15	324.86	322.92	318.51

EMS EUROPEAN CURRENCY UNIT RATES

	ECU central rates	Currency amounts against ECU March 16	% change from central rate	% change adjusted for divergence	Divergence limit %
Belgian Franc ...	44.9008	46.7445	+1.88	+1.81	±1.5447
Danish Krone ...	8.14104	8.16812	+0.32	+0.26	±1.6425
German D-Mark	2.24184	2.23324	−0.38	−0.45	±1.0642

Changes are for ECU, therefore positive change denotes a weak currency. Adjustment calculated by Financial Times.

THE POUND SPOT AND FORWARD

OTHER CURRENCIES

BANK OF ENGLAND TREASURY BILL TENDER

THE DOLLAR SPOT AND FORWARD

CURRENCY MOVEMENTS

CURRENCY RATES

EXCHANGE CROSS RATES

EURO-CURRENCY INTEREST RATES (Market closing rates)

Mar. 16	Swiss Franc	D-mark	French Franc	Italian Lira	Belgian Franc Conv.	Belgian Franc Fin.	Yen	Danish Kroner
Short term	6-2¼	5 1/16-5 3/16	12½-16¾	16¾-16¾	16½-18	11½-16	6 3/16-6 11/16	10⅝-10⅞
7 days' notice	8-8⅛	5½-5 9/16	18⅝-12⅞	16¼-17¼	13-14⅛	11¾-12	6 3/16-6 11/16	11-11½
Month	3 1/16-3 7/16	5 9/16-5⅝	14⅝-14⅝	16½-17	16¼-13¾	11¾-12	6 3/16-6 11/16	10⅞-11⅛
Three months	3 5/16-3 7/16	6 3/16-5⅝	15¾-16	16⅞-17⅜	16-16½	11¾-12	6 3/16-6 5/16	10⅞-11⅛
Six months	3¾-3⅞	5¾-5 13/16	15⅞-15⅛	17¼-17¾	18½-13	11¾-18	6 3/16-6 5/16	10⅞-11⅜
One year	4 1/16-4 7/16	6 1/16-6⅛	16⅞-16⅛	17¾-18¼	12¼-18¾	11¾-18	6 7/16-6 9/16	11¼-11¾

Asian $ (closing rates in Singapore). Short-term 10-10⅛ per cent; seven days 10-10⅛ per cent; one month 10⅜-10⅝ per cent; three months 10⅜-10½ per cent; six months 10 11/16-10 13/16 per cent; one year 11⅛-11¼ per cent. Long-term Eurodollars two years 11⅝-11⅞ per cent; three years 12⅛-12⅜ per cent; four years 12⅜-12⅝ per cent; five years 12½-12¾ per cent nominal closing rates. Short-term rates are call for U.S. dollars and Japanese yen; two days' notice.

FINANCIAL FUTURES

LONDON

CHICAGO

WEEKLY CHANGE IN WORLD INTEREST RATES

MONEY MARKETS

London rates contrast with New York

UK clearing banks' base lending rate 8½-8¾ per cent (since March 15 and 16)

London money market interest rates stabilised towards the end of last week, after moving down another notch when the Bank of England cut its dealing rates on Wednesday, giving the major banks the opportunity for another cut in base rates. Of the big four banks only National Westminster, Midland and Lloyds reduced their rates by ¼ per cent to 8½ per cent, while Barclays remained on the rate set the previous week by that bank alone at 8¾ per cent.

The cut to 8½ per cent had been expected for some time, but the impetus built up when the City and overseas investors reacted favourably to Tuesday's Budget. On Wednesday morning supplies of the 10 per cent Exchequer 1989 tap stock were soon exhausted, and this was followed in the next hour or so by another ¼ per cent reduction in Bank of England money market intervention rates.

After the fall in base rates gilts became rather nervous, but then picked up later in the week, while strong demand for equities took the Financial Times Industrial Ordinary index to record levels. Despite the strength of London's financial markets on Friday the authorities did not take advantage of the situation by issuing another tap stock.

The decline in London interest rates contrasted quite sharply with New York, however, where intervention by the Federal Reserve in the money market was regarded as less than wholehearted, leading to speculation that inflationary pressure has encouraged the Fed to adopt a tighter monetary stance. It was not thought likely that the authorities wished to keep the Federal funds overnight rate as high as 10 per cent, but the indirect addition of only $700m to the market through customer repurchase agreements on Wednesday at a level of 9 15/16 per cent increased speculation about tighter policy. On Thursday a customer repurchase agreement of $2bn was carried out at 10 1/16 per cent, but on Friday pressure eased, with a $1bn customer repo conducted at 9¾ per cent.

The latest U.S. financial statistics have failed to give any firm lead on U.S. monetary policy in the immediate future but the picture may become clearer after the Federal Open Market Committee meets towards the end of this month.

MONEY RATES

Mar. 16	Frankfurt	Paris	Zurich	Amst'dam	Tokyo	Milan	Brussels	Dublin
Overnight	5.45-5.50	12¾	1⅛-8⅛	6¼-6⅜	6.34375	16⅞-17¼	12	11¼-11½
One month	5.65-5.80	19⅝-12⅛	6 3/16-3 7/16	6⅛-6⅜	6.40625	17-17⅜	11⅝-11⅞	16½-12⅜
Two months	5.55-5.80	16 7/16-16 9/16	—	—	—	—	—	12⅜-12¾
Three months	5.70-5.85	19⅛-19⅝	3⅝-3⅛	8⅛-6⅜	6.28125	17¼-17⅜	11¾-19	16¾-13
Six months	5.80-5.95	12⅝-12¾	—	6 1/16-6 3/16	—	—	11¾-19	19⅞-13⅛
Lombard	8.5	—	—	—	—	—	—	—
Intervention	—	12	—	6⅞	—	—	—	—

LONDON MONEY RATES

Discount Houses Deposit and Bill Rates

Mar. 16 1984	Sterling Certificate of deposit	Interbank	Local Authority deposits
Overnight	—	8-10	8¾
6 days notice	—	—	8¾
7 days or	—	—	—
7 day notice	—	8⅝-8¾	8¾
One month	8 11/16 8¾	6¾-8⅞	8¾
Two months	8 11/16-8¾	8¾-8⅞	8¾
Three months	8 11/16-8¾	8¾-8⅞	8¾
Six months	8 13/16-8 15/16	8⅞-9	8 13/16
Nine months	9 1/16-9 3/16	9-9⅛	9 1/16
One year	9 1/16-9 3/16	9 1/16-9 3/16	9 1/16

	Local Auth. negotiable bonds	Local Authority Deposits	Finance House Deposits
One month	9¼-8⅞	—	8 11/16
Two months	9¼-8⅞	—	8 11/16
Three months	8¼-8⅞	—	8 11/16
Six months	9 3/16 8 15/16	—	8
Nine months	8⅝-9	—	8⅛
One year	9¾-9	—	9 1/16
Two years	—	9⅞	—
Three years	—	10⅛-9⅞	—
Four years	—	10⅜-10⅛	—
Five years	—	10⅛-10¼	—

ECGD Fixed Rate Export Finance Scheme IV Average Rate for interest period February 8 to March 9 1984 (inclusive): 9.373 per cent. Local authorities and finance houses seven days' notice, others seven days' fixed. Finance Houses Base Rates (published by the Finance Houses Association): 9½ per cent from March 1 1984. London and Scottish Clearing Bank Rates for lending 8½-8¾ per cent. London Deposit Rate for sums at seven days' notice 5¾ per cent. Treasury Bills: Average tender rates of discount 8.3498 per cent. Certificates of Tax Deposit (Series 6). Deposits of £100,000 and over held under one month 9 per cent; one-three months 9 per cent; three-six months 9¼ per cent; six-12 months 9¼ per cent. Under £100,000 8¾ per cent from March 15. Deposits held under Series 4-5 9¾ per cent. The rate for all deposits withdrawn for cash 7 per cent.

MONEY RATES

NEW YORK (4 pm)

FT LONDON INTERBANK FIXING

LONDON INTERBANK FIXING (11.00 a.m. March 16)

6 months U.S. dollars	
bid 10 5/16	offer 10 7/16

6 months U.S. dollars	
bid 10 5/8	offer 10 3/4

The fixing rates are the arithmetic means, rounded to the nearest one-sixteenth, of the bid and offered rates for $10m quoted by the market to five reference banks at 11 a.m. each working day. The banks are National Westminster Bank, Bank of Tokyo, Deutsche Bank, Banque Nationale de Paris and Morgan Guaranty Trust.

BASE LENDING RATES

Granville & Co. Limited

Member of NASDIM

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Over-the-Counter Market